UNITED NATIONS ENVIRONMENT PROGRAMME

TERMINAL EVALUATION OF THE GEF PROJECT ENHANCING THE USE OF SCIENCE IN INTERNATIONAL WATERS PROJECTS TO IMPROVE PROJECT RESULTS

The GEF is potentially conducting one of the biggest trials of adaptive management on the planet. It is important not to understate this contribution to 'big picture' science. IW: Science – Executive Guidance Document. 2012

GEF ID 3343

Evaluation Office



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With sadness we also acknowledge the untimely passing, while this report was being compiled, of Professor Laurence Mee, who not only drove the project, especially through chairing the SSG, but gave so many years of his life to the development of IW initiatives through UNEP and the GEF. Vale, Laurence.

3. LIST OF ACRONYMS

APEC Asia-Pacific Economic Co-Operation

BSP Bali Strategic Plan (of UNEP)

CBD Convention on Biological Diversity

CEO Chief Executive Officer

CI Conservation International

CMS Convention on Migratory Species

DESA United Nations Department of Economic

and Social Affairs

DOALOS United Nations Department of Oceans

and Law of the Sea

EA Executing Agency

ECE United Nations Economic Commission for

Europe

FAO United Nations Food and Agriculture

Organisation

GBIF Global Biodiversity Information Facility

GEB Global Environmental Benefit

GEF Global Environment Facility

GEFSEC Global Environmental Facility

Secretariat

GEFSTAP Scientific and Technical Advisory

Panel of the GEF

GESAMP The Joint Group of Experts on the

Scientific Aspects of Marine Environmental

Protection

GIWA Global International Waters Assessment

IA Implementing Agency

IAHS International Association of Hydrological

Sciences

IPCC Intergovernmental panel on Climate Change

IW International Waters Focal Area of the GEF

IWMI International Water Management Institute

KM Knowledge Management

M&E Monitoring and Evaluation

MTR Mid-term Review

PIF Project Identification Form

PIR Project Implementation Report

POW Programme of Work

PMU Project Management Unit

ROtI Review of Outcomes to Impact

SCOPE Scientific Committee on Problems of the

Environment

SIWI Stockholm International Water Institute

SLN Science Learning Network

SSG Synthesis Steering Group

STAP Scientific and Technical Advisory Panel

(of the GEF)

TDA Transboundary Diagnostic Analysis

ToR Terms of reference

TM Task Manager

TWAP Transboundary Waters Assessment

Programme

UBC university of British Columbia (Canada)

UNDP United Nations Development Programme

UNEP United Nations Environment Programme

UNEP- DEWA Division of Early Warning and Assessment

UNESCO United Nations Educational, Scientific and Cultural Organisation

UNESCO-IHP International Hydrological programme of UNESCO

UNESCO-IOC International Oceanographic Commission of UNESCO

UN-OCEANS an inter-agency mechanism that seeks to enhance the coordination, coherence and effectiveness of competent organizations of the United Nations system and the International Seabed Authority

UNU-EHS United Nations University – Institute for Environment and Human Security

UNU-INWEH United Nations University – International Network on Water, Environment and Health

UN-WATER United Nations inter-agency coordination mechanism for all freshwater and sanitation related matters.

WG Working group

WWF Worldwide Fund for Nature (can also be World Water Forum)

4. EXECUTIVE SUMMARY

- 1. The GEF Medium Size Project (MSP) Enhancing the use of science in International Waters projects to improve project results', originated from several issues; key amongst which was a view that the global water community is increasingly recognizing the need for a more "joined-up", systems-based approach. Accordingly, the UNEP-implemented and UNU-INWEH -executed GEF project 'Enhancing the use of Science in International Waters projects to improve project results' was designed to recognize, capture, analyse and integrate the scientific findings from the broad range of GEF-IW projects implemented since the inception of the GEF, and to disseminate those findings across the IW portfolio and beyond.
- 2. The cost of the MSP was \$2.2 million, with GEF TF providing \$1 million. Co-financing was to be essentially in-kind but with \$50,000 in cash from UNU-INWEH. Overall the objective of this highly relevant project was to improve access to science, on the basis that more exploitation of science would improve the overall environmental impact of IW.
- 3. Within that objective, the **project had 3 main aims**:
 - assess what science was used in the roughly 200 GEF IW projects undertaken since the focal area was established and consider its relevance,
 - assess what, if any, new science has been created under the GEF IW projects; and
 - connect the IW:Science portal with the broader scientific water community; and then undertake a comparative review of the science outcomes and modes of scientific engagement.
- 4. To achieve this, a specifically-constructed knowledge management tool known as the GEF IW Scientific Learning Network (SLN) was to be developed, comprising both database and interactive networking tool components. Later in project implementation delays for 12 months ensured a positive development linkage with the IW:Learn project phase 3, which incorporated a Science conference at which IW:Science results were launched.
- 5. The evaluation proceeded through a desk review of available reports, publications and web sites. A set of semi-structured interviews was conducted using one or more of six key questions for the interviews. Those six questions were:

Has scientific learning from the IW project portfolio been documented in a way that is useful and accessible?

Did the synthesis process lead to the identification of important new generalisations on IW, gaps in knowledge, critical priorities or indicators for results-based management?

Has the project contributed to the development of a sustainable capacity for knowledge sharing, mutual learning and strategic priority setting for the IW portfolio?

Have the project activities contributed to the effectiveness of transboundary diagnostic analysis?

Overall, has the project led to increased use of science in the GEF IW focal area in priority setting, knowledge sharing and results based adaptive management? How has this impacted the GEFSEC, STAP, GEF COUNCIL and IAs? How is "use of Science" interpreted?

Has the project had impact on the global scientific community beyond the GEF IW project participants?

Information gathered from these interviews was used to inform the evaluation, especially in developing a reconstructed theory of Change, and Review of Outcomes to Impact.

- 6. The review of Outcomes to Impact undertaken by the evaluators showed some mainstreaming of science underpinning in policy, decision making, and management of transboundary waters by the GEF family. The very indirect linkage between 'use of science' and the higher level results, i.e. tangible Global Environmental Benefits, defined in the GEF IW focal area strategy was obvious from the project design. So, in the end, the project's outcomes (improved availability and use of science) were not sufficient to achieve a Global Environmental Benefit on any significant scale.
- 7. The project has produced outputs which were not previously available, and thus created outcomes which are favourable to achievement of the projects objectives. It was expected that these outputs would feed into ongoing and planned projects and programmes for IW, but there was no specific prior allocation of responsibilities or resources after project funding.
- 8. Overall the project was **Moderately Satisfactory**. This rating is awarded because of issues with the sustainability and legacy of the project which, if achieved, would allow the project to be regarded as **Satisfactory** in performance. The performance of the various elements of the project is described in the table below:

A. Strategic	As IW area does not have a global convention there was a	HS
relevance	need for systematically supporting IW work; not least through	
	improving the uptake and use of science.	
	The IW:Learn Knowledge Management Strategy (KMS) at the	
	time seemed to be lacking the full support of GEF Sec Senior	
	Management hence the need for an alternative mechanism for	
	capturing scientific experience. Unlike the other focal areas	
	where the KM aspects are handled under the conventions, the	
	IW focal area needs its own mechanism.	

B. Achievement of	Generally the outputs were achieved. Also, there is variability	S
outputs	in quality between the various synopses and analytical reports	
•	(as reported in interviews). Generally the project outputs	
	responded to a need within the global IW community for a	
	greater awareness of past project lessons and experiences.	
C. Effectiveness:		MS
Attainment of project		
objectives and results		
1. Achievement of direct	The SLN was achieved at a strategic level, however at the	MS/MU
outcomes	implementation level it has been less successful as there is no	
	evidence of its active use in project planning and	
	implementation. The understanding of scientific gaps in GEF	
	projects – such as the omission of social science, has been	
	somewhat improved.	
2. Likelihood of impact	The project outputs have not resulted in the necessary	MU
•	behavioural change needed to make a tangible contribution to	
	the better management of TB waters. The lack of	
	sustainability of the SLN (which depends on voluntary action)	
	exacerbates this situation.	
3. Achievement of project	This was achieved to some degree but was limited due to the	MS
goal and planned	issues related to lack of behavioural change and sustainability	
objectives	noted above.	
D. Sustainability and		U
replication		
1. Financial	According to the GEFSEC it is unlikely that there would be a	U
	2 nd phase of the project. No provision has been made for	
	legacy management, resulting in the SLN declining in value	
	and relevance over time. No other sources of funds have been	
	identified to maintain the SLN, including the planned future	
	phase of IW:Learn.	
2. Socio-political		N/A
3. Institutional framework	There is no institutional framework developed to sustain the	MU
	project outputs (IW:LEARN seems to have been tacitly	
	regarded as the mechanism for this).	
4. Environmental		N/A
5. Catalytic role and	Little evidence of the project playing a catalytic role, other	MU
replication	than providing inputs (synopsis and analysis reports of the	
	water-bodies and the synthesis report) to the Science	
	Conference held under IW:Learn.	
E. Efficiency		HS
F. Factors affecting	Design issues, tardy recruitment, lack of links with broader	MU
project performance	science community, lack of cooperation between organisations	
	among others were all factors which affected performance.	
1. Preparation and	Generally good but the STAP comments on the PIF indicate	MS
readiness	some room for improvement in clarifying the project target	

	groups and methodological approach – which did not appear	
	to be taken up. The project was both approved and started	
	with some inherent design weaknesses.	
2. Project implementation	Although UNU-INWEH performed project management tasks	MU
and management	satisfactorily, there were difficulties in accessing and collating	
	the full set of project documents needed to perform the	
	analysis and synthesis.	
3. Stakeholders	In light of the stated project aim of reaching out to the global	U
participation and public	water community the project did little to engage beyond the 5	
awareness	groups (of around 20 scientists each) in the respective working	
	groups.	
4. Country ownership and		N/A
driven-ness		
5. Financial planning and	Project finances were kept simple and managed seemingly	S
management	satisfactorily.	
6. UNEP supervision and	On the whole performed satisfactorily, though perhaps UNEP	S
backstopping	could have assisted more in collating the missing project	
11 0	documents where the efforts of the EA fell short.	
7. Monitoring and	The evaluators are unconvinced that delegating the MTR to	MU
evaluation	part of a SC meeting, rather than as a formal processes, was	
	sensible; it could have picked-up on problems related to	
	stakeholder outreach and sustainability allowing for effective	
	responses to these issues to be developed and implemented.	
a. M&E Design	The M&E design sought to minimise cost and use project	MU
C	structures such as the SC, and the PIR evaluations by the IA,	
	and did not include a specific mid-term review. Such a review	
	may well have helped refocus some of the critical issues at an	
	earlier point in the projects execution.	
b. Budgeting and funding	The SC was funded, but largely for other duties – it is unclear	MU
for M&E activities	that the earmarked M&E funding went towards M&E	
	activities exclusively.	
c. M&E plan	The implementation of M&E was in line with that indicated in	MS
Implementation	the prodoc, but the indicators could have been better	
<u> </u>	constructed (i.e. SMARTer), and the logframe contained very	
	poor base-line information.	
Overall project rating	^	MS
1 0	I .	<u> </u>

9. There are **10 key conclusions** from this project:

i. **Conclusion 1** is that although some elements of the project have been successful, there were enough setbacks and problems to militate against a fully successful final result. Ultimate translation into GEBs, even in optimal circumstance would be indirect and subject to considerable lag times.

- ii. **Conclusion 2** is there seemed little connection with a key set of stakeholders the secretariats of MEAs and global programmes which contribute to Protecting, Purifying, and Producing water for the planet.
- iii. **Conclusion 3** is that is that more attention should have been given to a theoretical framework for project design, especially connecting the outputs to the GEF family, from the outset
- iv. **Conclusion 4** is that too many walls remain within the IW focal area not to mention between IW and other focal areas (e.g. tensions and barriers between actors working on IW:Learn and the present project).
- v. **Conclusion 5** is appropriate social science context is critical for the inclusion of adaptive management in projects, but there are open questions around how to integrate this in both design and implementation.
- vi. **Conclusion 6** is that targeted future research needs should be identified for IW projects this could be done by the STAP with a budget allocated or by a broader science advisory group to the CEO.
- vii. **Conclusion 7** is that document control curation and archiving should be much better managed across the GEF family.
- viii. **Conclusion 8** is that GEFSEC and the GEF 'Family' should have paid more attention to the role of science in supporting improved management and policy in the implementation of GEF projects.
 - ix. **Conclusion 9** Uptake by the GEFSEC and others of the outputs and outcomes of the project; in particular the recommendations contained in the synthesis report, has been weak. We believe the project should have had more focus on encouraging such uptake.
 - x. **Conclusion 10** is that this project (and it is far from unique) suffered from a range of interinstitutional communication issues which affected the delivery of the outcomes.
- 10. Four valuable lessons were however learned in executing this project. **Two lessons** relate to the GEF family and two are more general, applicable not only to the present project but GEF projects more generally.
 - i. The GEF Family should develop its document control systems across the whole GEF family to ensure that when data bases are developed it is easy to discover and incorporate project-related documentation.
 - ii. The GEF family must be more pro-active in reaching beyond the GEF wall, and taking initiatives to link with the wider global water science networks, for IW and other focal areas.
 - iii. When Databases are developed with social networking components they should be well projected, well-advertised and have ease of access by all.

- iv. Any future projects of this kind (i.e. examining the science basis of part of the GEF portfolio activities) should anticipate the possibility of poor inter-institutional interactions in developing and implementing the project.
- 11. Based on the foregoing, we arrive at **five recommendations to the GEF** Family for the future of such projects.
 - i. There is an obvious need for Science; not science for science's sake but for policy development, including the need for a better grip on economic valuation. All-in-all the GEFSEC focal action aspiration is to get GEF family to share work across global community, and take research effort and results into knowledge based management, with a focus on investment in in KM for the longer term. Recommendation 1 is that all GEF IW projects should now have science explicitly exposed and evident, with scientific developments being updated during the project's management and monitoring phases.
 - ii. Recommendation 2 is that consideration be given to 4 yearly opportunities for the IW:Learn conference to have an added science component, which would feature a particular theme decided at the previous IW:Learn conference. These science add-on events would draw in invited speakers and attendees, and within the chosen theme deal with gap analysis, horizon scanning and other cutting edge issues for a 2-day science event. In this way the appeal and focus of the IW conferences would be expanded, and the science agenda kept up-to-date. We further recommend that such an event be organised by UNU-INWEH, with the next due in 2016.
 - iii. A key issue surrounds the database and its maintenance. At time of writing we understand it is physically on UNU server. IW:Learn could "manage" the database through links to the UNU-INWEH server, or take it completely in-house. There are several solutions to this issue, but Recommendation 3 is that a decision should be taken to continue and update the database, determine its long-term home, and fund the host organisation accordingly. We do not recommend the need for "social networking" in this process, that can evolve if it is required, but top-down imposition of such structures rarely work as in this case.
 - iv. Two final recommendations have occurred to the evaluators which arise from the project specificities but are beyond its immediate remit. However we put them forward for thought. First, the issue of why IW:Science and not similar projects for other areas; has been raised with us on several occasions. The answer also comes, when we seek it, that IW is unusual as it has no convention to provide mechanisms for technical back-stopping, as is the case with other focal areas. While this articulation seems sensible, we would argue that the successful elements of this project suggest wider use of its approach, leading to **Recommendation 4**; that the project should be replicated across all GEF Focal areas, provided the faults we have identified are avoided.
 - v. Where GEF funding is not large and the co-financing is almost all in-kind instructional and personal support that managing an MSP with all the attendant trappings serves only to add delays and create difficulties for all concerned. **Recommendation 5 is that for any future** projects involving KM or similar, which are country independent, consideration should

be given to funding them as corporate grants, or deliberately outsourced, directly from GEFSEC, with appropriate accountability and GEF Council approval.

5. Introduction and Background

PROJECT GENERAL INFORMATION

Table 1. Project summary

GEF project ID:	3343	IMIS number:	
Focal Area(s):	IW	GEF OP #:	N/A
GEF Strategic Priority/Objective:	IW SO1 and 2 - IW-SP1 to SP4	GEF approval date:	20 th August 2008
UNEP approval date:	16 th December 2008	Date of first disbursement:	8 th January 2009
Actual start date:	13 th January 2009	Planned duration:	30 months
Intended completion date:	30 th November 2012	Actual or Expected completion date:	30 th November 2012
Project Type:	MSP	GEF Allocation:	US\$ 1,000,000
PPG GEF cost:	nil	PPG co-financing:	Nil
Expected MSP/FSP Co- financing:	US\$1,029,000	Total Cost:	US\$ 2,029,000
Mid-term review/evaluation. (planned date):	None	Terminal Evaluation (actual date):	February 2014
Mid-term review/evaluation. (actual date):	None	No. of revisions:	2
Date of last Steering Committee meeting:	March 2012	Date of last Revision:	
Disbursement as of 30 June 2012:	US\$ 965,000	Date of financial closure:	N/A
Date of Completion:	N/A	Actual expenditures reported as of 30 June 2012:	US\$ 965,000
Total co-financing realized as of 30 June 2012:	1,200,000	Actual expenditures entered in IMIS as of 30 June 2012:	US\$ 965,000

Leveraged financing:	N/A	

- 12. The GEF Medium Size Project (MSP) Enhancing the use of science in International Waters projects to improve project results', originated from several issues; key amongst which was a view that the global water community is increasingly recognizing the need for a more "joined-up", systems-based approach. Accordingly, the UNEP-implemented and UNU-INWEH -executed GEF project 'Enhancing the use of Science in International Waters projects to improve project results' was designed to recognize, capture, analyse and integrate the scientific findings from the broad range of IW projects and to disseminate them across the IW portfolio and beyond.
- 13. There was also a perception at the time of project development that that the IW:Learn project seemed to be lacking the full support of GEF Sec Senior Management, and would not be renewed for a third phase. There were also widely held views within the GEF 'family' that better scientific underpinning of GEF projects could help inform project development and acceptance, leading to better outcomes and thus impacts for IW portfolio projects. The project was approved in December 2008 and led as the executing agency by UNU-INWEH, with UNEP as the implementing agency. The project partners¹, worked in concert with ca. 120 scientific experts and key GEF project scientists to produce IW system specific reports and a final overall IW synthesis report. The cost of the MSP was \$2.200 million, with GEF TF providing \$ 1 million. Co-financing was to be essentially in-kind but with \$50k in cash from UNU-INWEH.

6. THE EVALUATION

OBJECTIVES, APPROACH AND LIMITATIONS OF THE EVALUATION

- 14. This evaluation reviewed (for their completeness and ease of use) the documentation and databases published from the project (five x 2 reports + synthesis report); all PIR details, and the financial accounts provided by UNEP, and UNU-INWEH. Bearing in mind that this project is unusual in that it is not directly delivering on-ground outcomes, the evaluation covered the following aspects:
 - Strategic relevance of the project;
 - Design and effectiveness of the scientific analysis;
 - Financial matters, including the balance between in-kind co-financing and GEF funding;
 - M&E design and implementation;

¹ UNU-INWEH (United Nations University – International Network on Water, Environment and Health); UNEP – DEWA (United Nations Environment Programme – The Division of Early Warning and Assessment); UNESCO (United Nations Educational, Scientific and Cultural Organization); LOICZ (Land-Ocean Interactions in the Coastal Zone); SAMS (The Scottish Association for Marine Science); ELME (European Lifestyles and Marine Ecosystems); UNU -EHS (United Nations University – Institute for Environment and Human Security); CWN (Canadian Water Network); UNW-DPC (UN-Water Decade Programme on Capacity Development)

- Complementarities with UNEP and GEF strategies and programmes;
- Legacy elements of the project.

The ToRs provided six generic questions (italics below) for the evaluators to tackle. The evaluators used these as "chapeau" questions to keep in mind when conducting interviews, but as the questions are blurred between themselves, and have many internal cross-links, the evaluators used more detailed questions to explore aspects of the project through semi-structured interviews with range of persons as presented in ANNEX 2 Interview list and schedule. The detailed questions are colour coded to show as much linkage as possible to the chapeau questions. The matrix follows the outline of the final report, detailing the questions for interviews, target persons and data sources to be used.

- Has scientific learning from the IW project portfolio been documented in a way that is useful and accessible?
- What were the main obstacles in extracting the science content from the IW projects?
- What links between IW: Learn and IW: Science were established, and how will they be managed into the future?
- Did the synthesis process lead to the identification of important new generalisations on IW, gaps in knowledge, critical priorities or indicators for results-based management?
- How did the SC and SSG work?
- How were they made to be effective?
- What science gaps, critical future priorities, and indicators for results-based management were identified?
- How were they conveyed to GEF and implementing agencies?
- Did the production of 5 reports perpetuate the internal "silo" of IW?
- Has the project contributed to the development of a sustainable capacity for knowledge sharing, mutual learning and strategic priority setting for the IW portfolio?
- How was the use of science in the GEF IW focal area enhanced to strengthen priority setting, knowledge sharing, and adaptive management in current and future projects?
- How were the social and natural sciences integrated into a systems approach that strengthened ecosystem-based, adaptive management within IW projects?
- How were the results of IW:Learn; TWAP; KM:Land linked with IW: Science?
- Have the project activities contributed to the effectiveness of transboundary diagnostic analysis?
- Can you explain how stronger, better validated Transboundary Diagnostic Analyses within projects was achieved?
- Overall, has the project led to increased use of science in the GEF IW focal area in priority setting, knowledge sharing and results based adaptive management? How has this impacted the GEFSEC, STAP, GEF COUNCIL and IAs? How is "use of Science" interpreted?
- Was the impact of better management of IWs firmly in mind throughout the project? How was this managed?
- Was there an attempt to treat IW as one coherent area, or were freshwater, coastal and marine issues treated separately?

- Was the GEFSEC properly proactive in helping the project?
- Is there a sense that GEFSEC now understands the need and role for science to underpin projects? And that science information is recoverable from project results?
- How did the management processes of the project generally work?
- How useful and involved was GEF-STAP in the project? What is its future role? How is STAP using the results? In PIF evaluation? In horizon scanning?
- Has the project had impact on the global scientific community beyond the GEF IW project participants?
- Were GESAMP, SCOPE, IWMI, SIWI and IAHS involved in the project? If so, how much so, and what did they contribute?
- What was the role of the UNESCO programmes IHP and IOC? Was there cooperation between these UNESCO units in the project? Did UNESCO-IHP link IOC to the WG?
- How were programmes like LOICZ and ELME and the CWN used during the project? How did LOICZ work with IOC/IHP/ELME?
- How were promotion of the SLN platform, inventory database and synthesis reports to the IW focal area and the global water community achieved?
- How have the global water community responded to the project outputs and outcomes?

A small set of questions related to key financial issues were identified and used by the evaluators to try and clarify some open questions on financial aspects of the project.

- 15. One disadvantage for the evaluators has been the length of time between project completion and this TE. As a consequence (although not an unusual challenge) many key personnel are no longer in post, or even with the organisation they were when actors in the project. Furthermore, we are aware that some few behavioural and attitudinal changes with respect to use of science in IW had taken place even before our report. We welcome that, but hope this report can reinforce actions already underway, and give impetus to new measures we suggest, and continue a direction of travel where all in the GEF family apply the following principle: think science first, before design and implementation, (rather than science being introduced as an afterthought).
- 16. A further unique feature of this evaluation has been the closely intertwined nature of IW:Science and IW:Learn which means we have repeatedly to return to aspects of IW:Learn to understand, and contextualise the findings with respect to the implementation of IW:Science.

7. THE PROJECT

CONTEXT

- 17. Strategic planning for the IW focal area, undertaken by its Technical Advisory Group, clearly indicated a need for a platform for the assessment, integration, exchange and dissemination of scientific information and findings from GEF IW projects, both past and current as a "corporate" GEF need. Given that there were real environmental impacts to be gained from GEF-SEC having better scientific information on IW issues at their fingertips and a seeming desire from all parties to have broader involvement of the global "water science community" in GEF IW matters, the project was to focus on "mining" scientific data from the projects undertaken by IW focal area, and presenting it in compiled form as a synthesis of the state of IW science in GEF projects.
- 18. The project responded thus to this GEF corporate need and helped to motivate the funding and implementation of IW projects. Overall, the projects objective was "to enhance through knowledge integration and information-sharing tools the use of science in the GEF IW focal area to strengthen priority setting, knowledge sharing, and results-based, adaptive management in current and future projects."
- 19. According to the **Request for CEO endorsement/approval submitted on 21 December 2007** the project had three component objectives, which are rather low level and rather indirectly focused on achieving global environmental benefits, *viz*:
 - Understanding and documenting, for future analysis and reference, the scientific experience and scientific best practices from the IW project portfolio;
 - Undertaking and reporting a comparative, cross sectoral assessment of IW science, identifying intended users and impacts, contemporary scientific challenges, research and science-policy gaps, emerging issues, and global scale impact;
 - Creating an IW scientific learning network for information (SLN) sharing and mutual learning among IW projects and the wider water science community.

The expected Project Outcomes were:

- Comprehensive understanding of the past and current scientific experience from the IW Project Portfolio, documented by ecosystem type
- An assessment and synthesis of science across the full IW portfolio to identify science gaps, critical future priorities and indicators for results-based management
- Sustaining capacity for knowledge sharing, mutual learning, and strategic priority-setting for the IW portfolio, in concert with the global scientific community.
- 20. In discussion with the project Director and other key actors in the project, it was clear that to achieve the objective, the project should work on three main lines of activity:

- i. assess what science was used in the roughly 200 GEF IW projects undertaken since the focal area was established and consider its relevance,
- ii. assess what, if any, new science has been created under the GEF IW projects; and
- iii. connect the IW:Science portal with the broader scientific water community.
- 21. All GEF International Waters projects are informed to some extent by science in order to understand the complex interface of the environment and human activity to then help realize the objectives of a mosaic of regional and international water agreements. With a significant investment to date including a large and valuable resource of scientific knowledge, the funded projects cover an exceptionally broad spectrum of systems from lake and river basins to groundwater aquifers to coastal and open ocean ecosystems.
- 22. Historically, GIWA may be regarded as a precursor IW:Science project². A view put to the evaluators was that the origins of the project came about through discussions between UNU-INWEH and UNEP proposing an approach for better science.. Certainly it seems UNU-INWEH saw the knowledge (science) base was weak in GEF sensu lato. UNU-INWEH also wanted to impress this issue on GEFSEC, as they were of the view that the full range of GEF science cannot be captured by STAP alone with the part-time expert resources at STAP's disposal. All of this, set against the 2004 review³ (much of which still remains to be acted on) suggests a need for sharp but effective review of the science underpinning of and support for the GEF.
- 23. The design of the project included GEFSEC involvement. A key point was that the project was seen as important for understanding not only the way science is used but how *it could be used*. The process envisaged was sifting through past projects, building an information and evidence base.
- 24. In discussing the project at inception considerable co-financing from, *inter alia*, the U.K. and Germany was anticipated, and planning proceeded on the basis that UNU-INWEH would hire four project implementation staff. In the end this level co-financing did not eventuate, leading to a reduced project framework at project approval, with only one dedicated project manager at UNU-INWEH being appointed. Slightly later it transpired that IW:Learn *was* given funding for a third phase, which began in 2010, and is scheduled to finish in July 2014.
- 25. Recognising that over \$1 billion had been disbursed by GEF in the IW area the Project Objective was to enhance through knowledge integration and information-sharing tools the use of science in the GEF international waters (IW) focal area to *strengthen priority setting, knowledge sharing, and results-based, adaptive management in current and future projects.*
- 26. The projects aims were to systematically inventory, collate, analyse and synthesise the science experience within the IW project portfolio, and then undertake a comparative review of the science outcomes and modes of scientific engagement. This was to allow portfolio-wide integration of knowledge and subsequent formulation of science-based recommendations regarding critical

²Noting, however, that GIWA was a global systemic IW assessment whereas the IW science project was a status report/baseline report of the level of science in GEF IW projects

³ See Mee, L.D., Dublin, H.T., Eberhard, A.A. 2008. Evaluating the Global Environment Facility: A goodwill gesture or a serious attempt to deliver global benefits? *Global Environmental Change*. 18. 800-810.

- emerging science areas, the application of science for adaptive management in transboundary situations, and the development and use of indicators to support results-based project management.
- 27. To achieve this, a specifically-constructed knowledge management tool known as the GEF IW Scientific Learning Network (SLN) was to be developed, comprising both database and interactive networking tool components.
- 28. A database was designed to facilitate the identification and extraction of scientific knowledge so that the wealth of information within the IW portfolio becomes accessible and retrievable at a previously unknown scale. The entire IW portfolio of available documents was to be fully text searchable and able be tagged for scientific knowledge. The analysis process was to be undertaken using an approach analogous to that of the Millennium Ecosystem Assessment or the IPCC Assessment. This global team of scientists and GEF project managers formed five Working Groups, one for each IW ecosystem type; River Basins, Lake Basins, Groundwater, Large Marine Ecosystems / Open Ocean and Land-based Pollution Sounces (LBS), and were to prepare both a synopsis and analysis report for their respective IW System Type. The technologies developed allowed this high-level analysis to be undertaken using the database formed from the document.
- 29. In parallel to the database development, a web-based Learning Network was to be established providing communication, interaction and knowledge sharing tools to sustain a virtual working environment for the IW:Science community. Decentralized work spaces, along with wiki-tools, one-click document sharing, online discussion forums and other interactive capabilities were all foreseen at document development stage, in an approach that ensured integration with the database. It was envisaged that the reach of the technologies employed to develop the learning network, and the SLN itself, would grow and expand over the life if the IW:Science project and beyond.
- 30. Using that base, expert panels would look at the elements of the IW focal area. IW:Science was seen to have a supporting role in developing Comprehensive assessments, including Climate Change especially as the on-going TWAP project was perceived by many as too narrow, not going into sufficient depth. And there was a general view among those building the project that the IW focal area needed better development of Science-policy interfaces.
- 31. The IW:Science project also foresaw the preparation of three portfolio-wide Scientific Synthesis reports, one for each of the themes considered by the Working Groups as well as an executive policy-guidance overview. This synthesis process was described in the Macau report as: "Following working group production of the synopsis and analysis reports the co-chairs will form the scientific synthesis group who are responsible for producing an executive policy-guidance overview and three synthesis reports, as per the three categories of core questions, by synthesizing the findings in the five working group analysis reports. Additional opportunity to outputs such as peer-reviewed publications is encouraged. Outputs are to be considered as starting points for GEF's long term commitment to science."
- 32. This synthesis process was to provide an overall insight into the emerging science issues, use of science for adaptive management and the development of proxy indicators resulting from the previous significant investment and global efforts of the GEF IW focal area. This interdisciplinary, multisystem exercise was to strengthen the understanding of transboundary water challenges, and enhance

the exchange and uptake of knowledge and best practices for sustainable water resources management into the future.

- 33. Regarding the SLN, the Macau inception meeting report noted that "The establishment of the **Science Learning Network** (SLN) a virtual community that has the potential to become a permanent feature in GEF knowledge sharing and management to allow continued compilation, accumulation, and diffusion of scientific knowledge among IW projects and beyond."
- 34. In implementing the project, UNEP-DEWA would work closely with UNU-INWEH in co-designing the MSP work plan and would coordinate the river basin component of the project, using its networks to identify Working Group participants. It would also manage the incorporation of the IW science knowledge base into the IW:Learn information portal, contributing to the science synthesis, and ensuring legacy for IW:Learn. This latter point became unnecessary when further funding was given for IW:Learn in 2010 under project 3900. UNEP remained the IA for this whole process, with the intellectual driver being UNU-INWEH, working in close cooperation with other partners, including UNEP-DEWA, which should have allowed for a continuing consistent and coherent approach. However, there remained ambiguity about the precise development of the project from original conception to completion.
- 35. IW:Learn phase 3 included a component (3.1) which noted that "The wealth of experiences coming from the IW:Learn-2 and the IW:Science project form a solid base for the organization of the IW Science Conference and implementing a portfolio-wide knowledge management strategy the scientific conclusions and experiences emanating from this conference would be captured, synthesised and disseminated, as appropriate, through targeted, policy-relevant publications, the IW:Learn knowledge management system, and other UN internet portals." There was thus conflation of outputs, outcomes and objectives in the latter stages of the IW:Science project with the third phase of IW:Learn.

OBJECTIVES AND COMPONENTS

- 36. As stated earlier, the Project overall Objective was to enhance through knowledge integration and information-sharing tools the use of science in the GEF IW focal area to strengthen priority setting, knowledge sharing, and results-based, adaptive management in current and future IW projects. The project had three component objectives, namely:
 - Understanding and documenting, for future analysis and reference, the scientific experience and scientific best practices from the IW project portfolio
 - Undertaking and reporting a comparative, cross-sectoral assessment of IW science, identifying intended users and impacts, contemporary scientific challenges, research and science-policy gaps, emerging issues, and global-scale impacts.
 - Creating an IW scientific learning network for information sharing and mutual learning among IW projects and with the wider water science community
- 37. The project foresaw three components each with associated actions to reach the three component objectives:
 - Component 1 Documenting and understanding IW scientific experience and best practices;

- Component 2 Integrated synthesis of IW science challenges, gaps and emerging issues across ecosystem classes;
- Component 3 Establish the "Science Learning Network" for knowledge sharing, mutual learning and global influence.

TARGET AREAS/GROUPS

- 38. The project targeted a range of IW scientists and practitioners, particularly in the analysis, synopsis and synthesis phases. The report from the inception meeting noted;
 - "Our work should respond to the corporate needs of GEF, as well as the scientific and research community, especially those involved in IW issues "
 - However, the membership of the five working groups was limited to around 120 scientists spread across the IW System Type; River Basins, Lake Basins, Groundwater, Large Marine Ecosystems and the Open Ocean, so there was not much penetration to the Global Water Community, as envisaged in the project design. A full list of participants and organisations represented in the working groups is at ANNEX 4.Members of the Working groups.

MILESTONES/KEY DATES IN PROJECT DESIGN AND IMPLEMENTATION

- 39. The The MSP prodoc and CEO endorsement doc was submitted on 23 August 2007 and resubmitted on December 24 2007. It was submitted finally for CEO approval on 15 July 2008, finally signed in December 2008, with the initial transfer of funds to UNU-INWEH (as executing agency) on 16 January 2009. The overall project design was focussed on improved and better utilization of science-based outputs of GEF IW projects to:
 - Identify program gaps and contribute to strategic prioritization for future GEF interventions in international waters;
 - Strengthen the scientific underpinning for IW Transboundary Diagnostic Analysis (TDA):
 - Catalyse the building of research capacity within GEF IW family:
 - Strengthen results-based, adaptive management:
 - Improve science-to-management links.
- 40. In terms of project design, at project inception no effort had been made to recognize, capture, analyse and integrate the scientific findings from IW projects and to disseminate them across the IW portfolio and beyond. Nor had the opportunity been taken to inform IW project scientists and managers about broader global water science issues, in particular emerging challenges, new methodologies and scientific developments. This lack of a systematic approach to managing scientific findings and techniques used, refined or developed during IW project implementation in essence forms the baseline for the proposed evaluation. At project inception the results and data from previous IW projects were curated by the IW:Learn project. Annex 3 Review of provides a detailed critique of the project design

41. A key question for such a project would have been WHO WAS THE AUDIENCE? This question did not seem to have been posed, although there is some evidence UNU-INWEH was thinking along these lines. The initial very brief STAP review undertaken by the then newly appointed IW STAP member is very clear on this. She says, *inter alia*, with our emphasis:

"The project should clarify who its target groups are for outcomes and products. Are they the resource managers and policy makers, the scientists, the development agencies (including GEF), etc. Having defined this – and the answer is likely to be that there are several target audiences – then think about what each of them needs. Perhaps even build in a small segment that canvasses their needs of science.

It could be very useful to develop/adapt from other fields, means of *mapping the place of science* in the project and development processes, and the adoption pathways for science. This will usually reveal that there are many steps in the adoption pathway and that many intermediate products and target audiences need to be considered. How is the science going to be used and in what derived forms by those along the pathway?

Overall, it may be useful at this stage to better clarify whether this is an actual science priority setting and assessment process for IWs with an attached learning process OR whether it is a more methodological project that will use IW work and come up with recommendations for approaches, as well as canvass what has been done. I am not really clear on this from reading the PIF."

- 42. And neither were the evaluators. It is a pity these astute comments do not seem to have taken up as the project progressed, and draws into question the effectiveness of the role of STAP in this and other science processes, a topic we touch on later.
- 43. The impact foreseen is that by demonstrating results and science achievements of GEF IW projects, these results will contribute to the broader GEF goal to improve sustainable, adaptive management of transboundary waters systems across the globe. One issue is a lack of real focus in this proposed environmental impact of the project it seems to assume all this data collection and analysis is a good thing and more good things will flow from it which may be true but is not elaborated sufficiently at the outset. In other words, the intervention logic leading to higher level results is rather vague in the project design. This also has consequences for constructing detailed causal pathways that lead to higher level results in the Theory of Change.
- 44. The governance arrangements were fairly standard for large scientific undertaking, with *a Project steering Committee (SC)*, governing a range of Working Groups dealing with the analysis and synopses of sub-sets of the IW focal area, and a *Scientific Synthesis Group (SSG)* of key players and stakeholders "driving" the project and securing the outcomes. At the first meeting of the SC, it was suggested that the PIFs prodocs, TDAs and other standard project documentation (e.g. documented experience from demonstration projects) would contain all the relevant information to review the science. For some projects existing scientific information was synthesized as the basis for the formulation of projects and interventions (e.g., South China Sea and Gulf of Thailand Project (project 885); Sulu-Celebes Sea Sustainable Fisheries Management Project (project 3524)). In some cases science was not evident in the GEF documents because science-based research was not part of agreed GEF funding objectives, so any element of research, even though necessary to fulfil the project objectives, was not reflected in the documents. This weakness is not limited to IW projects but was

- "mission-critical" for this project.
- 45. Because of the initial, and subsequently deeper, intertwining of the IW:Learn and IW:Science projects this evaluation will touch also on the relationship between the two, and how legacy for both is to be ensured, and impact maintained. The project design also had clear links to the KM:Land and TWAP projects. Ensuring project results and legacy involve more than the GEF family is a stated aim, yet the project design does not elaborate particularly on ways to achieve this. The IW Science Conference mentioned was still an event that was evolving at the design stage of the project. This important aspect of the project design is not as well developed as it should be, and this has consequences for a fully effective long-term impact of the projects outputs and outcomes.
- 46. The financial planning seemed adequate, although there was very large amount of "in-kind" cofinancing. The involvement of several Programmes, in addition to institutions, as part of the execution strategy (LOICZ, ELEME (an EU FP6 funded project), Canadian Water Network is unusual, although the evaluators concur that the range of additional expertise that these programmes could bring to the table is large indeed.
- 47. There were a number of key milestones, especially the Inception meeting for the analysis of the documents and data collated in 2009. This Inception meeting was held in Macau in January 2010. A "midpoint meeting" of the Steering Committee for the IW: Science project was held at UNESCO, Paris on the 8th 9th April 2010. The structure of the meeting served to allow the SC to review the activities undertaken thus far, propose guidance where required and reach consensus on any necessary adjustments or changes within the project. The mid-point of the project also provided opportunity to review and revise M&E aspects of the project as required. These were; project timeline, project budget, identified risks and the project rubric for Terminal Evaluation purposes we return to this later in paragraph 79. 2010 saw sustained activity through the working groups dealing with the analysis, synopsis and ultimately synthesis phases.
- 48. Discussions with the EA and IA informed the evaluators that the project's inception and implementation was delayed. The project was originally intended to run until 31 May 2011, but a 2 month project extension was requested at mid-term point but a subsequent further extension due to the unexpected delay associated with missing documentation was subsequently needed until December 2011. This delay provided an advantage allowing "synchronization with the IW Science Conference organization under IW:Learn" with the final products linking to the 5 IW System Type Synopsis and Analysis Reports and the two Thematic Synthesis Reports; 'Application of science for adaptive management & Development and use of indicators to support IW projects' and 'Critical Emerging Science Issues and Research Needs for Targeted Intervention in the IW Focal Area'. " This science conference (and presumed biennial successors) was to focus on:
 - comparative analysis of scientific results from GEF IW projects;
 - identification of critical science challenges by thematic area, based on regional priorities;
 - evaluation of scientific best practices, in particular, transboundary diagnostic analysis (TDA) of freshwater and coastal/marine systems;
 - experiences on how science is used in GEF IW projects, including the role of local science communities; and
 - building applied science capacity within the GEF family, including access to new findings on emerging issues, new methodologies and science breakthroughs.

49. Because of conflation with the IW:Learn phase 3 project (discussed above in para.41) that used the results of the IW:Science project, The IW:Science project then ran until December 2012 with the files finally closed in 2013. While a virtue is made of this delay in allowing links to the IW:Learn Science conference, the overrunning of the project is regrettable, and largely due to the difficulties experienced in discovering the documentation, which we touch on later.

IMPLEMENTATION ARRANGEMENTS

- 50. The project was implemented by UNEP/GEF (Nairobi Washington DC) and executed by the United Nations University Institute for Water, environment and Health (Waterloo, Canada). The then UNEP Division of GEF Coordination (subsequently UNEP-DEPI) as the implementing agency was responsible for overall project supervision to ensure consistency with GEF and UNEP policies and procedures. UNEP was also responsible for approving possible revisions and approving the substantive and technical reports produced in accordance with the schedule of work. UNU-INWEH was responsible for the development of the database⁴ of documents from previous GEF IW projects, arranging the establishment and supervision of the Working groups dealing with scientific analysis and synoptic views. UNU-INWEH had to liaise with the Project Manager of IW-LEARN / UNEP-DEWA as key UN actors curating the GEFIW documentation.
- 51. UNU-INWEH also hosted and managed the Synthesis Steering group (SSG) which oversaw the production of the final synthesis report. At the same time the newly approved IW:Learn phase 3 was funded which included funding to host the first IW:Science conference, which was determined to be at UNEP in Bangkok. The arrangements for this meeting, as a part of IW:LEARN 3, were made by UNEP-DEWA, and the UNEP Chief Scientist.
- 52. Additionally, there were 3 projects all meant to contribute to better understanding of IW transboundary issues:
 - TDA-SAP review being done by UNEP
 - Institutional and legal frameworks by UBC⁵; and
 - The current project being evaluated, IW:Science
- 53. The idea was that the above 3 initiatives would be mutually reinforcing but in reality this did not happen. Once the IW:Science data-base had been assembled, the project had an inception conference in 2010, at which invited WG members, with UNEP, UNU-INWEH, UNU-EHS and UNDP involved. Throughout the project lifespan the WGs acted like mini-IPCCs working in silos with little overlap, but able to interrogate the whole data base by keywords.

PROJECT PARTNERS

⁴ CEO Endorsement PRODOC p7

⁵ Good Practices and Portfolio <u>Learning in Transboundary Freshwater and Marine Legal and Institutional Frameworks</u>

54. Apart from UNEP-DEWA, UNU-INWEH and two other UNU Institutes - United Nations University - International Institute for Software Technology (UNU -IIST) and United Nations University Institute for Environment and Human Security UNU -EHS, there were several organisational partners cooperating; UNESCO-IHP (United Nations Educational, Scientific and Cultural Organization – International Hydrological programme); LOICZ (Land-Ocean Interactions in the Coastal Zone); SAMS (The Scottish Association for Marine Science); ELME (European Lifestyles and Marine Ecosystems – a European Union FP6 programme); CWN (Canadian Water Network); UNW-DPC (UN-Water Decade Programme on Capacity Development). The extent to which these organisations were active participants beyond involvement in the Working Groups was not fully clear to the evaluators, although all were said to provide co-financing, largely through intellectual contributions. Around 120 individual scientists and IW related professionals from these institutions and many others also contributed through the working groups, detailed in Annexe 2.

CHANGES IN DESIGN DURING IMPLEMENTATION

- 55. An additional activity was added to Outcome 3 ("Sustaining capacity for knowledge sharing, mutual learning and strategic priority setting for the IW portfolio in concert with the global scientific community") on the basis that the IW:Science Scientific Learning Network would serve as the forum, information dissemination and interactive mechanism for the IW portfolio to utilise in the lead-up to IWC6. The uptake of the IW:Science Scientific Learning technologies by UN-Water was also raised as a mechanism to demonstrate highly-satisfactory ratings for relevant indicators within the IW:Science project. However later we deal with this issue since it seems the project results are "invisible" to UN-WATER and doubtless more so to UN-OCEANS.
- 56. It is noted earlier that three synthesis reports were to be produced. In fact in March 2012 a decision was taken (and endorsed by the SC Chairs and UNEP) that two of these Synthesis Reports ('Critical Emerging Science Issues and Research Needs for Targeted Intervention in the IW Focal Area' and 'Application of science for adaptive management & Development and use of indicators to support IW projects') be merged into a single Synthesis report to provide stronger, concise findings and prevent repetition. This consolidated report, was entitled "SCIENCE-POLICY BRIDGES OVER TROUBLED WATERS Making Science Deliver Greater Impacts in Shared Water Systems". This left a total of two synthesis reports, the other dealing with policy guidance, essentially attempting to help enhance the use of Science in International Waters projects to improve project results, and the other a broader view of present and future science-policy challenges in IW. The evaluators were comfortable that this consolidation did not materially change the results of the project.

8. EVALUATION FINDINGS

STRATEGIC RELEVANCE

57. There seems little doubt that the strategic relevance for this project is high. Since inception all GEF projects have accumulated a significant repository of documentation and information, much of it scientific in nature. Regarding scientific learning from the IW project portfolio being documented in a way that is useful and accessible, a comment frequently heard by the evaluators was that "GEF doesn't do science". By this was meant the lack of obvious scientific input into projects which were supposed, for all the obvious political and administrative rationale, to be primarily country-focussed. Of course this does not represent the real world, and so many, if not all, the projects GEF undertakes have had, or should have had, somewhere in the proposal, the issue of underpinning science raised and reviewed. This MSP was a Flagship test to investigate this idea. Simply put, it aimed to review all projects in the IW focal area and draw out what elements were overt – or covert – elements of science conclusion or practice. The evaluators found no negative comments on the strategic relevance of the project.

The overall rating on Strategic relevance is **Highly Satisfactory**.

ACHIEVEMENT OF OUTPUTS

- 58. The project outputs were; 1) The Science and Learning Platform (SLN); 2) the 5 Analytical and Synopsis Reports on the separate IW Ecosystems; and 3) the Science Synthesis Report.
- 59. Faced with implementation, there was not so much which such a small project could realistically do to promote an integrated approach across all the water-body types. Rather the aim was to promote better use of science within each of the water-body types a pre-condition for eventual development of synergies and integration. And to discover (in data base terminology) the full range of documentation accumulated and assumedly well curated and archived by IAs of past IW projects.
- 60. The Executing Agency was surprised at how difficult it was to locate project documents; a factor noted in many documents and the PIRs. Many projects had closed-down with no arrangements for preserving the documents especially from the GEF Pilot Phase. IW:Learn (a joint UNDP/UNEP initiaitive) provided approximately 1,500 documents. The GEFSEC helped a lot with sourcing project documents. It was reported to the evaluators that the former IW head in GEFSEC assisted the project by making links to retired project staff who had in their possession project documents which could not be found elsewhere! This suggests an extraordinary laxity in document control / archiving among the GEF family.

- 61. The appointment of the Project Officer for the EA had to wait an unconscionable time before recruitment finalised. While a not uncommon issue, the evaluators take the opportunity to note again delays caused by overly bureaucratic mechanisms. While the Evaluators understand the constraints imposed by wider UN rules, such delays can create significant risks and reduce the likelihood that projects can achieve their objectives within the planned timeframes.
- 62. The difficulties faced by the UNU in tracking down and collating the project documents makes it clear that document control curation and archiving should be much better managed across the GEF family. At the close of the project the portal contained 6,000 project documents searchable to the word level. This means that in a document primarily about surface water you may be able to find a relevant section dealing with other water-bodies such as marine or groundwater. This presented the possibility of breaking down of the silos between the water-bodies, and, although the evaluators have not seen unequivocal evidence for this, anecdotal evidence suggests at least greater awareness amongst the actors that such barrier breakdown is needed.
- 63. In asking the question of contribution by the project activities to the effectiveness of transboundary diagnostic analysis a little history is useful. The GEF IW focal area started in a real way out of UNEP regional seas programmes in the early '90s. A project in the Black Sea was the first effort in the post-Rio(92) context. Second was the Danube River Basin, a freshwater system. The Black Sea project was the first to develop a TDA. Indications of effectiveness for TDA lie mainly in qualitative narrative from the producers and users of project reports. Today there is a greater emphasis on social science when performing TDAs with issues such as gender and poverty sometimes being incorporated. Essentially, TDA SAPs are a version of The Ecosystem Approach⁶, but with more horizon scanning/scenario building and must feature adaptive management⁷. A weakness is that they do not often have sufficient institutional or political focus and should have a vision for up to 20 years beyond project closure.
- 64. TDA SAPs are of limited utility if they are simply presented as 'documents'. To be effective TDA SAPs must be supported by processes that build stakeholder ownership and are endorsed at ministerial levels, and implemented. TDA SAPs are inspired from *inter alia* economic valuation and not be regarded as a quick technocratic fix but an approach that reflects long-term buy-in and legitimacy from the community level upwards. The analysis process for TDAs in IW is distinct, and needs to be set in a values-derived process; including possibly cultural as well as socio-economic aspects. While the project exposed a range of TDA activities in the context of science behind TDA in the GEFSEC it is unclear if the project materially changed the structure, design or implementation of TDAs, and this is an area the IW "family" should keep under review at its biennial conferences.

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⁶ http://www.cbd.int/ecosystem/

⁷ Task Manger's note: The TDA-SAP methodology of the GEF comes from the EMINWA (Environmental Management of Inland Waters) methodology of UNEP formulated in 1986 as a 2 steps approach starting with a diagnostic analysis of the environmental degradation followed by a response action plan captured in the SAP. The GEF brought it to a higher level, ensured that the root causes of the environmental degradation be looked at and allowing for ample consultation throughout the process (with time and resources). With LME, the GEF methodology is strongly inspired by the NOAA LME approach

- 65. The IW:Science project reports were "a mixed bag". Most of them were superficial and appeared to have little utility. The reports dealing with groundwaters are perhaps an exception; reflecting the greater commitment and involvement of that group of scientists with the definitive backing of UNESCO's IHP. Certainly, however, the science synthesis report was more thoughtful, and appears to have been well received. Even so, there was little evidence provided or available to the evaluators of its conclusions thus far affecting the performance of the GEF IW focal area, although interviewees from STAP felt the materials helped them in their project reviews.
- 66. While it was hoped the project would produce emerging issues for an IW gap analysis, results here were also rather weak. Presentation of results at a Science conference in the last year of the project was also not initially envisaged, and became possible only through the funding of the IW:Learn phase 3, which included specific funding provision for the conference. At the Science conference questions were raised on the need for greater social science perspectives, which the current STAP IW focal point has taken up, and produced a publication "The Political Economy of Regionalism: The Relevance for International Waters and the Global Environment Facility".
- 67. In parallel to the database development, a web-based Learning Network (the Science Learning Network SLN) was supposed to be established to provide communication, interaction and knowledge sharing tools to sustain a virtual working environment for the IW:Science community. The database construction and design is both rugged and very effective for the purpose of the project.
- 68. It was envisaged that the reach of the technologies employed to develop the learning network, and the SLN itself, would grow and expand over the life if the IW:Science project and beyond. The evaluators did not find convincing evidence that this has occurred.

The overall rating on Achievement of outputs is **Moderately Satisfactory**.

9. EFFECTIVENESS: ATTAINMENT OF PROJECT OBJECTIVES AND RESULTS

RECONSTRUCTED THEORY OF CHANGE OF THE PROJECT

69. The evaluators developed an initial Theory of Change (ToC) approach at inception⁸, and used this to guide their work in the evaluation. Fig 1 shows the overall ToC. The Impact, or Global Environmental Benefits, would stem from improved management of transboundary waters. To achieve this, considerable behavioural change would be needed in the scientific community, the GEF Secretariat, and, crucially, Implementation and Executing agencies for IW projects. The behavioural changes required would include better awareness of the science available, better use of that science in project design and implementation, which would require outreach to and contribution from the "Global water community". Access to and use of Horizon scanning techniques is also desirable to achieve this change.

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⁸ The UNEP Evaluation Office prepared a draft reconstructed TOC during the evaluation inception phase. It is appended as Annex 8.

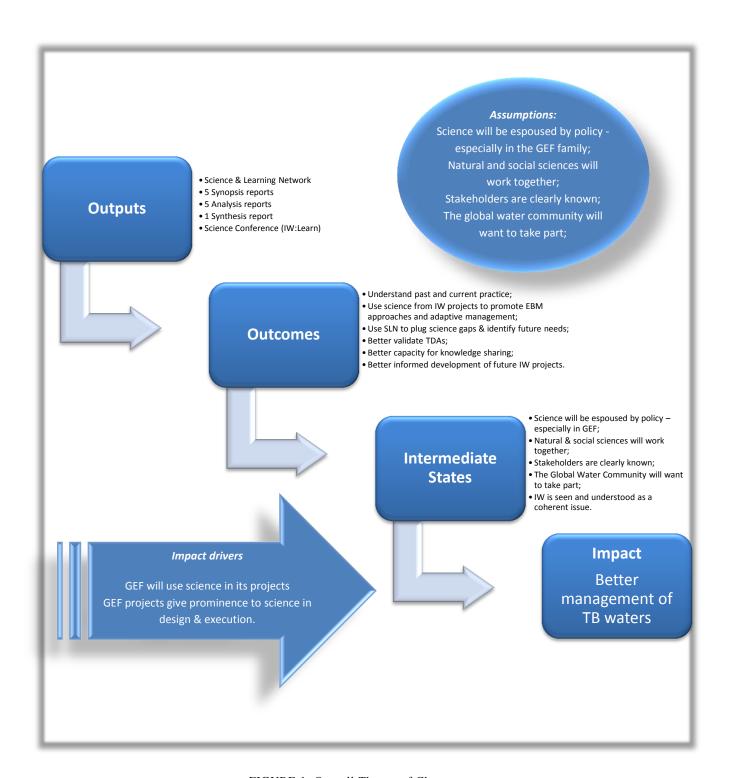


FIGURE 1: Overall Theory of Change

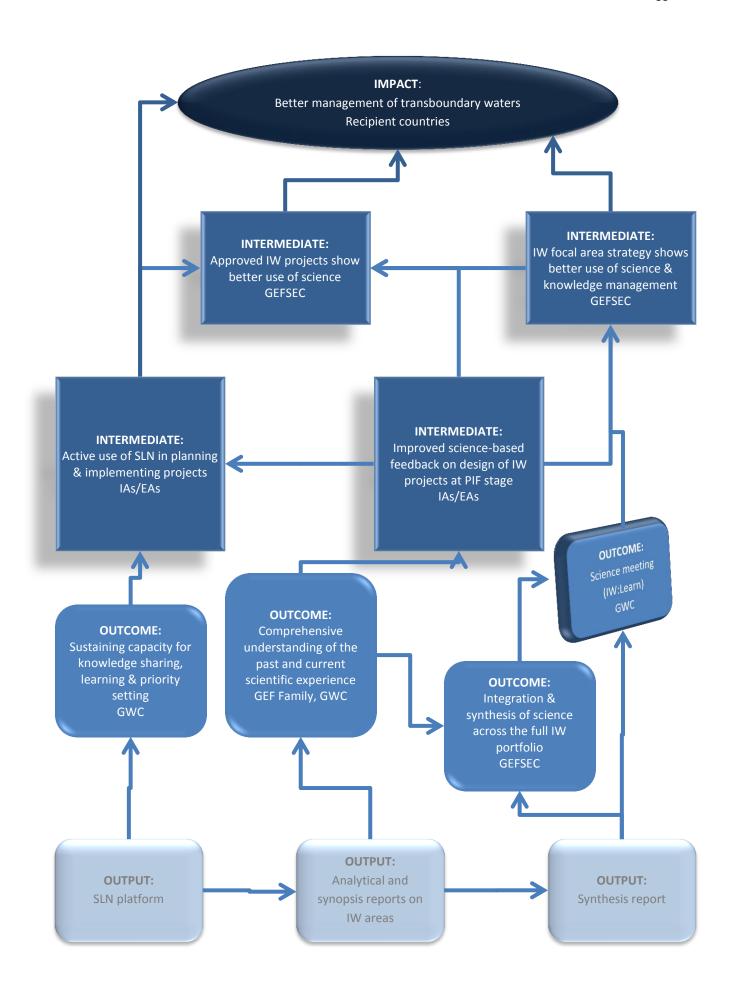
DIRECT OUTCOMES FROM RECONSTRUCTED TOC

- 70. This reconstructed ToC led to the evaluators identifying a number of assumptions made by the project design:
 - Science will be easily and normally taken up by policy makers, especially in the GEF family;
 - Natural and social science will work together;

- The stakeholders in the science-policy process are clearly known;
- The global water community will really want to take part and share information; and
- IW is a fully coherent topic.
- 71. These assumptions give rise to two key drivers which interact with the intermediate states to eventually and potentially giving rise to the Impact/GEB:
 - i. GEF takes up science in all IW projects and
 - ii. GEF IW projects give full prominence to science from concept to execution.

LIKELIHOOD OF IMPACT USING ROTI AND BASED ON RECONSTRUCTED TOC

- 72. Using this basic framework the evaluators undertook a Review of Outcomes to Impacts (ROtI) analysis, Shown in Table 1. Progress made towards achievement of project impacts was examined using a Review of Outcomes to Impacts (ROtI) analysis. The exercise identifies what are termed "intermediate states", which are the transitional conditions between the project's immediate outcomes and the intended impact (global environmental benefits or GEBs) and which are necessary conditions for the achievement of the intended impacts. Based upon this analysis it is possible to identify the intermediate states and assess to what extent the project has produced changes 'along' intended causal pathways. The assessment also identifies whether the project has put in place the necessary conditions for outcomes to be sustained in a way that will have a lasting impact.
- 73. The ToC is based on the premise that increased capacity of practitioners at all levels (i.e., availability of the guidelines and acquired skills) and application of this capacity will improve understanding of the science surrounding transboundary waters, in turn feeding back into and increasing a science base. The prodoc notes that (inter alia) "From a global perspective, when the science created in GEF projects is made more accessible internally and to the international community, it will contribute greatly to both the success of the IW focal area and to the realization of the UN Millennium Development Goals and the Johannesburg Plan of Action". Based on this, and discussions with the key actors in the project,, the evaluators see the intended environmental impact as being stated in general terms as "improvement in management of transboundary water systems, through more effective design of IW projects". Figure 2 illustrates the outputs and outcomes feed through a series of intermediate states, moderated by the assumptions and drivers identified above to achieve the intended environmental impact.
- 74. In essence this will mean mainstreaming of science underpinning in policy, decision making, and management of transboundary waters by the GEF family and recipient countries of funding for IW projects. This mainstreaming of science is intended to result in better project design, implementation and overall management of IWs. The complicating factor for this project, however, is the linkage to IW:Learn phase 3 and the IW Science conference held under that project, but using the outputs from this current project. Outcomes from that element are also included in Figure 2 to show the closely linked nature of these two projects.



- 75. In the end, the project's outcomes (improved availability and <u>use</u> of science) in themselves are not sufficient to achieve the Impact/GEB on any significant scale. Impact/GEB will only be achieved in the long term and through many indirect pathways that involve the design, approval and implementation of future IW projects, which in turn may lead to GEBs. Easy attribution of any such future GEBs accruing from such projects to this intervention is highly unlikely.
- 76. The overall likelihood that the long term impact will be achieved is rated on a six-point scale as **Moderately Likely (BC)** (Table 1⁹). This rating is based on the following observations:
 - The project has produced outputs which were not previously available, and created outcomes which are favourable to achievement of the projects objectives. It was expected that these outputs will feed into ongoing and planned projects and programmes for IW, but there was no specific prior allocation of responsibilities after project funding. (Rating B).
 - Measures designed to move towards and through intermediate states show some evidence in
 momentum that the project has generated towards better recognition of, appreciation of and
 incorporation of science into GEF IW projects; however, while this movement has started, the
 evaluators found little evidence of tangible results, and some (sometimes strong) opinion that
 there was not a viable future for the products of the project in the longer term. This gave rise
 to a rating C.

⁹ The table below shows how the ratings for 'achievement of outcomes' and 'progress towards intermediate states translate to ratings for the 'Overall likelihood of impact achievement' on a six point scale.

Highly Likely	Likely	Moderately Likely	Moderately Unlikely	Unlikely	Highly Unlikely
AA AB BA CA BB+ CB+ DA+ DB+	BB CB DA DB AC+ BC+	AC BC CC+ DC+	CC DC AD+ BD+	AD BD CD+ DD+	CD DD

TABLE 1: Review of Outcomes to Impacts

Results rating of project entitled:	Enhancing the use of science in International Waters projects to improve project results.						
Outputs	Outcomes	Rating (D – A)	Intermediate states	Rating (D – A)	Impact (GEBs)	Rating (+)	Overall
1. A comprehensive inventory ar knowledge base of science activity from the IW portfolio since its inception, organized by IW system type, with direct participation of project scientists Five state-of-art analytical report the IW science knowledge base as use of science, organized by IW system type	ties understanding of the past and current scientific experience from the IW Project Portfolio, documented by ecosystem type N.B. this is the outcome as in the	В	(1)Approved IW projects show better use of science (2)Improved science-based feedback on design of IW projects at PIF stage	С	Better management of transboundary waters		ВС

2 Cunthoric report with	integration and synthesis of	(1) Approved IW projects	Better management of	
2. Synthesis report, with recommendations, on:	science across the full IW	show better use of science	transboundary waters	
- emerging science issues and	portfolio			
research needs for targeted IW		(2)Improved science-based		
intervention.	+	feedback on design of IW		
-the application of science for	{IW:Learn Science meeting}	projects at PIF stage		
adaptive IW management.				
-the use of proxy indicators to support IW results-based				
management.				
management.		(3)IW focal area strategy		
		shows better use of science		
Executive policy-guidance overview		& knowledge management		
on key project conclusions,				
recommendations				
recommendations				
2. The DAY Colones I consider Makes with	Sustaining capacity for	(1)Approved IW projects	Better management of	
3. The IW Science Learning Network (SLN) designed and inaugurated for	knowledge sharing, mutual	show better use of science	transboundary waters	
knowledge-sharing and mutual	learning and strategic priority	(2)Active use of SLN in		
learning	setting for the IW portfolio in	planning & implementing		
	concert with the global scientific	projects		
	community			
Promotion of the SLN platform,				
inventory database and synthesis				
reports to the IW focal area and the				
global water community				
	Rating justification:	Rating justification:	Rating justification:	ВС
	The EA faced obstacles in	Thorougen problems in	Given the lack of	
		There were problems in		
	accessing and collating the full	ensuring sustainability of	sustainability	

set of project documents need to perform the analysis and synthesis. In turn this meant to process took longer and was less took longer and was less tisfactory than envisaged. The science analysis and synthesis was undertaken broadly in line with the original intent, but for communication IW:Learn was used as the vehicle which gave different focus.	critical for long-term use of results, and building the data base into the future. Paragraphs 64 -70 suggest evidence that the outputs are not being used as	arrangements for the key products, and the lack of enthusiasm for continued investment, there is likely to be rather limited effect of improving Transboundary water management. With the right arrangements however, this could quite quickly change.
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ACHIEVEMENT OF PROJECT GOAL AND PLANNED OBJECTIVES

77. The evaluators understand that the former UNEP Chief Scientist wanted to bring together all UNEP science areas, including STAP, and, working with UNU-INWEH, give feedback to GEF. Yet here is a key failing since this was a project in which many areas of the UN, and its specialised agencies which deal with science, would be expected to be involved; including FAO, UNESCO, UNDP - perhaps also DESA and DOALOS¹⁰. Yet substantial involvement in the project seemed to be restricted to just the same few organisations – and individuals - who have played a role in the GEF IW Focal Area since inception. Indeed, the task manager noted in the final PIR (1 July 2012 to 30 June 2013) that:

"Project existence is not known beyond implementation partners. This is a very GEF centric project whose uptake and deliverables are mostly of interest to the GEF".

- 78. Additionally, there were many problems which can be characterised as institutional shortcomings in establishing this project. Key among these were:
 - lack of clear and unambiguous interaction between UNU-INWEH and UNEP (some personality clashes);
 - poor document curation by the GEFSEC and UNEP and among the GEF 'family';
 - lack of full involvement by all players across the IW focal area.
- 79. Although the Task Manager raises, in part, some of these issues in the PIRs the evaluators feel more could have been done. In part this reflects also our concern that no mid-term evaluation was undertaken, since that would surely have reflected on the early problems and difficulties and those emerging from weakness in design and early execution.
- 80. Within the IW focal area the implementing agencies of the various projects made little real attempt to collate the completion and other reports form IW projects until IW:Learn and IW:Science developed. GEFSEC pushed for a process where the implementing agencies would produce "results notes" at the end of projects, giving an overview of experiences related to the implementation of the project but this also did not happen. Such notes were intended to analyse the project recommendations and decide on how to move ahead and implement the outputs.
- 81. The IW:Learn knowledge platform has received mixed reactions. Some feel it is the heart of the IW focal area, others however spoke of it as "very weak". In our evaluation several interviewees pointed out that the IW:Learn database actually held rather few project documents, and it was also rather difficult to use. However, as a result of developing its own portal and web interface during the projects initial phase IW:Science managed to more than treble the number of documents compared to that which IW:Learn had provided. IW:Science could not rely on that database for getting documents and had to construct their own portal which now seems buried in obscurity on the UNU-INWEH website (see http://inweh.unu.edu/).

¹⁰ Task manager asserts that FAO, UNESCO and UNDP were fully engaged through the Working Groups

82. UNU-INWEH as the executing agency clearly felt that UNEP or the GEF Secretariat didn't want to part with documents, whilst from the perspective of the IA, UNEP and other GEF Agencies made substantial efforts to facilitate the delivery of documents; not a trivial task especially with closed projects or older projects which had much fewer e-products than nowadays¹¹. This leaves, in many cases, speculation as to what might have been. Poor feedback from GEFSEC and lack of positive direction from the rest of the GEF family, especially UNEP-DEWA, left the EA feeling somewhat disadvantaged from the start – an example of failings in institutional cooperation and/or collaboration we allude to in Conclusion 10. While the project produced a series of analysis and synopsis reports and a final overall synthesis report these were not going to have much external profile, until IW:Learn phase 3 came into being and included an opportunity for the International Waters Science Conference as part of a so-called "Science Partnership". The relevant extract from the IW:Learn FSP is (our emphasis in bold):

"Component 3: Global and GEF IW Portfolio Learning and Dialogue to Enhance Project Delivery and Impact (implemented by UNDP and UNEP with UNU-INWEH and other partners). The component will help mobilize GEF IW projects sharing their experiences with global dialogues and policy debates under a GEF banner on freshwater, oceans, and groundwater.

3.4 Component 3c: IW Science Partnership

- 1. The main objective of the Science Partnership is to strengthen the engagement of the wider scientific community in GEF projects and to assist with ensuring that GEF IW project staff and stakeholders are more engaged and aware of global scientific advances and how science is being implemented across the IW portfolio.
 - 2. The overall objective of the IW Science conference is to continue to enhance the use of science and the effectiveness of local science communities in GEF IW projects through knowledge synthesis and information exchange. The objective is centred around dissemination of GEF research results; science-based analyses for transboundary fact-finding; science-based monitoring & evaluation; the linkage of science outputs to policy development and management; and the building of research capacity within the GEF family, including access to external, non-GEF findings on emerging issues, new methodologies, and science breakthroughs. To achieve these results, the research conference series would serve as:
 - a. An information-sharing platform of international scientific research among the GEF family of projects, capturing and showcasing results based on themes, key issues or geographic areas and highlighting scientific best practices across the IW portfolio;
 - b. A base to explore and reinforce sharing scientific knowledge with other scientific communities beyond the GEF; and
 - c. A vehicle to expand scientific productivity by building stronger relationships and understanding for improved capacity development within the IW portfolio".

¹¹ Task Manager note: GEFSec did not have access other than by IWLEARN to TDA, SAPs and technical documents except when given personally a copy. Whilst IW:LEARN is meant to be a central portal, it cannot not be any better than its sources of documents, that is individual project / project websites. The root cause of the matter in my view lies with projects.

- 83. Despite use of 'series' in 2 above, only one conference was held¹². That conference, held in Bangkok, 2012, had no agency other than UNEP involved in its organisation although UNESCO IHP did attend to present on its groundwater work. The Task Manager report that there was a good mix of participants from GEF agencies, project people (technical staff on the PCUs), GEF Sec, Governments including specialized agencies e.g. NOAA, NGOs (Small (GETF or big IUCN), Academia, Regional Organizations (e.g OAS), Basin Commissions, IWLEARN, International agencies/programmes (e.g. LOICZ) etc... From the UN, FAO, UNDP, UNEP, UNESCO IHP and IOC + IGRAC, UNESCAP, IAEA, UNECE, UNOPS were present However, whilst the CEO approved project document specifies UNEP-DEWA as the assigned to the organization of such an event. it is clear from evidence given to the evaluators that, despite its pivotal role, UNU-INWEH were insufficiently involved in this exercise. The Conference could have been a much more effective global launch for the IW:Science project results, but ended by being simply a gathering of those already involved in GEF IW matters, largely at the initiation, it appears, of UNEP.
- 84. While IW:Learn was not meant to be a mechanism for reaching out to the broader scientific community it did assist IW:Science (besides the Bangkok conference) in the production of two special editions of the *Journal of Environmental Development* (see http://www.sciencedirect.com/science/journal/22114645/7). Other than these two activities there has been very little interaction between the two projects, and very little help was provided in tracking down the past project documents.
- 85. The results of IW: Science did not appear to be well-linked with KM:Land or TWAP. KM LAND did adopt a similar style of portal for access to results. However, issues flagged in the synthesis reports were taken on board to the extent possible by the TWAP assessment methodologies (e.g. attention to socio –economic dimension which is a cross cutting issue in the TWAP synthesis assessment or Marine debris which is considered in the Large Marine Ecosystems and Open Ocean assessments.
- 86. While there is unanimity that the IW:Science data base helped present the science used and developed since IW Focal Area inception, there is less unanimity about the value of the synopsis process. In carrying through the activities UNU-INWEH acted as Secretariat for Steering groups and especially the Scientific Steering Group, as well developing the search mechanisms for documents and subsequent data mining. The IW resource person on STAP was very engaged in meetings. While this brought considerable skill and wide expertise to the process, it could potentially somewhat compromise the "neutral" role STAP is supposed to adopt with respect to project design an approval of any extension.
- 87. Although there is variable support for the content and direction of the analysis/synopsis reports there is universal recognition the Synthesis document was a very valuable exercise, and contained many useful recommendations and narrative. However, implementation needed personal engagement to carry through this valuable corpus of recommendations (all of which the evaluators endorse), and this was lacking after the project moved towards completion after the Science Conference. To be

¹² Task Manager Note; A change of leadership in the GEFSec led to the view that it was economical to run a special science conference every two years to alternate with the normal project Conference hence, in essence, a conference every year, and felt it would be more efficient to have a science day or even 2 days at the margin of the traditional IW Conference as previously done in 2009 in Cairns and in 2013 in Barbados. The idea of discontinuing the Science conference was captured in the Science Conference declaration.

regarded as fully effective (as *per* the ToC) a better approach to outreach and up-date is needed for the long-term. This does not necessarily mean another science conference, rather deliberative action by all the actors in involved in development, implementation and execution of IW projects including, absolutely, the GEFSEC.

- 88. There is unanimity of view that the project reinforced the strategic focus of the IW focal area, albeit that "transboundary" is the unifying theme. A key outcome from that conclusion is the clearly identified need for more social science to be incorporated in GEF projects. The analyses demonstrated that there has been very little of this especially in the marine projects. Surface water projects at least include some institutional and governance aspects.
- 89. We have commented above on the STAP comments from the IW focal point. She also presented on the project in 2009 at an IW meeting at UNU-INWEH-EHS *Inter alia* she made the following important points:

"It's not always about the science; but if science is critical, then it's about getting the science understood and acted *on in the context of routine policy making* where; little science/research input needed; it must be Incremental; and ad hoc and selective science/research input and existing processes are used. Fundamental and proactive policy change needs a major science/research input and Emergent policy shift; in reaction to crisis, new opportunity; and in response to external pressures for change."

90. Applying these thoughts it is clear there was not a good backbone for the project to link its suplly of information to the policy-making domain. Infoirmation and analysis ended up divided according to the internal IW systems, and thus did not help the early promise of promoting coherence throughout the whole of the IW focal area, let alone link it to other focal areas. Some of the IW: Science results are being used to evaluate PIFs by the STAP. Generally it is possible that the project outputs help GEFSEC appraise proposals for IW funding but this is not clearly evident. One observation from a previous member of the GEFSEC was that:

...they (STAP) were involved — but could have been more so. The STAP generally underperforms — so I hoped the IW:Science project would trigger them to do more. But this did not happen. For it to happen the STAP needs to include participation in science initiatives (outside of the GEF community) in their budget — which they currently don't.

STAP certainly finds it useful to see what's going on at the edge of science activities relevant for GEF projects. But STAP should also look beyond itself to peer-review, and external input into STAP projects.

91. One STAP IW consultant commented on the Synthesis reporting exercise in the following way:

"The Synthesis report is mostly silent about the linkage between GEF sponsored science and the wider science community, especially regarding the assumed catalytic role of the GEF and how to translate GEF science, including targeted research, into wider practice".

He also notes in the same report, in response to this recommendation regarding STAP:

The GEF should empower its Scientific and Technical Advisory Panel (STAP) or a group of similar standing to examine the basic scientific principles underpinning GEF projects and to communicate them to implementing and executing agencies in order to ensure greater

uniformity in terminology and overall methodology.

"The advice regarding STAP is superfluous; STAP is already delivering the recommended advice as a routine part of PIF and PFD screening and conditioning of minor and major revision feedback to proponents. In addition the series of strategic advisory documents fulfils the "greater uniformity" criterion. It is possible UNU-INWEH did not discover this part of the GEF project cycle during their work".

- 92. Despite the above view it is clear within operational limits the STAP IW Panel Member during most of the project was very active and wanted to ensure the project was successful. This included representation on the Steering Group. However, some of the project outputs did help in a STAP project on hypoxia in LMEs. Seizing on the clearly demonstrated need from the reports that more exposure to social science is needed in IW projects, the current IW STAP Panel member produced the publication *The Political Economy of Regionalism: The Relevance for International Waters and the Global Environment Facility*.
- 93. Relationships across the project agencies appeared less collegial than desirable, each with its own mind-set. The document database in UNEP for the IW:Learn web portal had around 1500 documents with very few documents properly archived. GEFSEC may not have been fully clear on lines of command and control for the project. GEFSEC were supposed to have had many of the documents yet some were never retrieved. The Audit trail from IW science to policy was thus rather weak, and often utterly deficient. The relationship between UNU_IWEH and UNEP-DEWA which began well became strained when the pressure built for documents (e.g. failure to respond to emails etc.)¹³. This was a classic example of poor data custodianship, but it was demonstrated to the evaluators that the current mechanisms for managing IW:Learn do seem to be improving, albeit with a long way to go.
- 94. There has generally been very little engagement with project by the 'non-GEF scientific community'. Although the IW:Science project did include a conference, the UNU viewed the ability of the conference to focus on IW:Science outputs and help promote the outcomes as being frustrated by UNEP 'interference' in running the Scientific and Technical Advisory Committee (STAC) before the conference. Nevertheless the IW Science Conference was steered by two committees one looking at the logistics and one on the substance, the STAC,. UNU was part of both. The evaluators were informed that UNU-INWEH wanted a call for papers and a much broader grouping of participants from outside the GEF community. The response to the call for papers was not very high though and the quality rather mediocre, however they were all reviewed by a panel including the IA and UNU and published. however UNU perceived that UNEP-invited attendees left little budget to pay for others to attend. The UNEP Task Manager reported that most of the participants were from outside the GEF community and UNDP commented on this in a crticisal manner. The GEF funding was used for GEF related participants whereas the funding raised by UNEP was used for non GEF affiliated participants. The process of identifying conference participants was taken very seriously by UNEP

¹³ Task Manger Note: UNU could mine IWLEARN. Calls were sent to GEF IAs to supply TDAs. Etc The TM provided documents from the UNEP cohort of projects. UNDP and WB also responded to the call but have much larger portfolios hence not always easy to trace things if not available on project websites especially for those projects which had closed down.

- who assigned its Chief Scientist as the lead on this Science Conference. The subsequent IW:Learn biannual conferences were supposed to alternate with the IW:Science biannual conferences but this has not yet eventuated, and the evaluators were given the impression there was little support for what would effectively become and annual GEF IW conference.
- 95. IW:Science was meant to use the IW:Learn platform to get the various IW projects to communicate with each other in the run-up to the conference but this did not happen. The projects were meant to come prepared to the conference (prepared to share science experiences) but there was no formal guidance to this end. Consequently, there was little technical; interaction among participants at the 2012 Bangkok conference mainly lots of presentations. Despite the aspirations in the prodoc, that the proposed project will *link GEF projects to the wider global water science networks*, there was also little involvement of the scientific world outside of GEF in the conference. Basically, the project was underfunded, especially with regard to dissemination and outreach, to effectively reach out to the wider global water science networks. Lack of better engagement with the global water science networks meant that the intermediate states identified in the ToC of *Approved IW projects show better use of science* and *IW focal area strategy shows better use of science* are much less likely to be achieved in full. Of course, there is a corpus of science with the GEF family, but the specific aspiration in the prodoc of involving to a greater degree the global water science networks on a permanent, on-going basis is vital to achieve the desired higher level impact.
- 96. The Working Groups included scientists from a wide range of backgrounds and organisations beyond the GEF community. They also represented a mix of physical scientists and social scientists. Organisations specifically mentioned in the PIF and Prodoc included GESAMP, SCOPE, IWMI, SIWI and IAHS. IAHS through its vice-chair was involved in the groundwater group but not apparently as an organisation. Similarly the Secretary of GESAMP was a member of the SSG but the others not so. ELME and LOICZ were involved as body of knowledge, essentially providing additional intellectual inputs as part of the global water science community for the project. There is no record of direct involvement for SCOPE, SIWI or IWMI. The Executive Guidance document was produced in-house by UNU-INWEH – by then the working groups were not contributing all that much. UNDP gave very little support and input. The UNESCO-IHP was the key actor in the groundwater work but there was little evidence of UNESCO-IOC involvement. From very beginning there was no real 'home' for coasts, subsumed under LMEs, and much of the focus was turned to land-based sources of pollution, which means some significant areas were left untouched. Gender balance in the working groups was very poor overall, with approximately 15% of WG participants being women. UNESCO-IHP was unique in achieving good gender balance in its working group. While this can reflect the nature of the subject matter, more attention should have been given to ensuring appropriate gender (and, as noted earlier) geographic balance.
- 97. Several interlocutors answered the question "Has the project had impact on the global scientific community beyond the GEF IW project participants?" with the response "Not at all.....". The World Water Forum and World Water Council had no real links with this project in implementation or in results. The UNECE Water Convention occasionally participates in IW Learn conferences. But there was no contact between IW:Science and the Water Convention. Similarly, the project appears invisible to the CBD Inland Waters programme, and the Science and Technical Review Panel of the Convention on Wetlands (Ramsar, Iran, 1971.). The evaluators were informed that results from

IW:Science were presented to UN-GA and UN-WATER. Yet anecdotal comments from a UN WATER member suggested that familiarity with the project's results was limited or lacking."

The overall rating on *Effectiveness: Attainment of project objectives and results* is **Moderately Satisfactory**

SUSTAINABILITY AND REPLICATION

- 98. A key issue here was a lack of a strategy to sustain project outcomes and legacy arrangements for the outputs, which, while having a significant "half-life" do potentially have value for a least a decade ahead. There is also the issue of adding to, and growing, the data base of information, using the techniques and skills available in UNU-INWEH which created own system for document depositary. A key disappointment was the lack of uptake by the donor community of the project findings. A presentation of the findings was made to the annual informal donors meeting on TWM during the World Water Week in Stockholm in 2012, but with little interest or result.
- 99. While there was sufficient funding to promote the outputs within the GEF family, especially to GEFSEC, funding in the project was insufficient to achieve many of the sustainability *desiderata*, and most of the participant organisations or programmes are not resourced to continue the work accomplished during the life of the project.
- 100. The evaluators feel it important that the IW:Science portal is maintained and updated with new project documents on an annual basis. The broader project network (members of working groups) should also be kept active possibly through another IW conference focussing on science, although the appetite for that is mixed and muted. The evaluators see value in having the IW:Science portal maintained. IW:Learn should be tasked with curating the portal in its 4th phase they have the budget to do so. UNU-INWEH should be tasked (and remunerated) with maintaining the IW:Science portal , clearly and explicitly embedded within the IW:Learn portal Both in IWLearn 3 and 4, UNEP is in charge of data management hence the IWLEARN website and portal.
- 101. All this must be seen against a backdrop of the GEFSEC having very strong support for IW:Learn. New implementation partners, including WWF/CI, apparently see IW: Learn as important in helping ensure knowledge management, and perhaps therefore more important than IW: Science. Clearly, the GEF CEO understands well and sees an increasing role for science generally, as part of knowledge management in maximising GEFs overall impact, especially in the context of the GEF6 replenishment. GEFSEC understands the need to balance long term process including acquisition of a sound science and evidence base vs. short termism. It is also clear that although IW:Science is not seen as especially successful, there is an appreciation appetite even- to develop a 'GEF learn' across focal areas but not really for a IW Science replicated across focal areas as such functions are covered by the convention secretariats..

The overall rating on Sustainability and replication is Moderately Satisfactory

EFFICIENCY

- 102. On examining the relevant documentation, and in our discussions, the evaluators found the project operated at relatively high levels of efficiency within the constraints noted early and in the paragraph to follow. In terms of cost-effectiveness and timeliness of project execution we find that the project delivered considerable result effort at low expenditure for GEF. The considerable in-kind co-financing meant the personal time and institutional resources of many institutions were brought to bear in a timely way on the project matter. Financial details are provided at Annexe 4.
- 103. The project was extended twice, but these extensions follow from slow starting times and long recruiting times for key staff, and the need to adjust form of outputs as circumstances changed. Once in place the project was executed in a timely way. We do not believe there were any major inefficiencies which cost the project resources of lack of product.

The overall rating on *Efficiency* is **Highly** Satisfactory

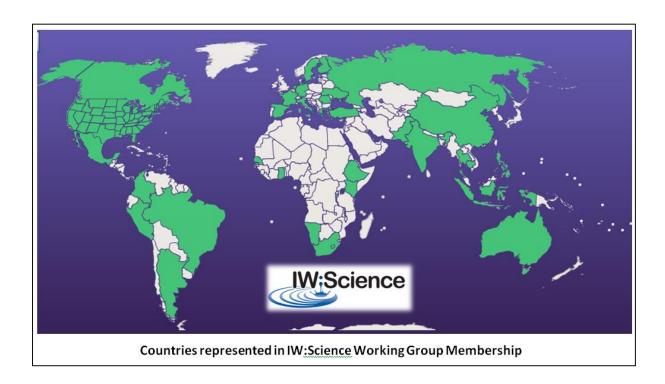
FACTORS AFFECTING PERFORMANCE

PREPARATION AND READINESS

104. STAP comments on the PIF indicated some room for improvement in clarifying the project target groups and methodological approach. This did not seem to have been undertaken and we believe sharper initial focus could have been achieved if it had been. While the evaluators found UNU-INWEH performed project execution satisfactorily, they faced obstacles in accessing and collating the full set of project documents needed to perform the analysis and synthesis. This initial unforeseen by one organisation but potentially foreseeable by the other set-back the project by some months. It was fortunate that the skills of the project officer enabled the damage could have caused to the project to be overcome.

PROJECT IMPLEMENTATION AND MANAGEMENT

105. The SSG formulated a common set of core questions before the project with the origins at meeting in Cape Town. The WGs met again, after their work, to promote the analysis and bring in outside science. However this was not at all successful. The key SSG task was to promote the synthesis – which was then launched at the IW:Learn/IW:Science Bangkok meeting in 2012. The geographic spread of the independent scientific experts appears weak in Africa and Arabian countries; somewhat weak in Latin America and Eastern Europe and some parts of Central Asia, a serious omission considering the large number of GEF IW projects in these areas as well as the potential for future projects. The map below, from the final report of the Inception meeting in Macau, show this geographic distribution:



STAKEHOLDERS PARTICIPATION AND PUBLIC AWARENESS

106. In light of the stated project aim of reaching out to the global water science community the project did little to engage beyond the 5 groups of around 20 scientists each in the respective working groups. While it is impossible to evaluate if this affected the breadth and depth of the science skills available it certainly reduced awareness and outreach of the project

COUNTRY OWNERSHIP AND DRIVEN-NESS

107. This is not relevant to the present project.

FINANCIAL PLANNING AND MANAGEMENT

108. There were no issues affecting performance here – the finances appear to have been well-managed, and the management of both EA and IA well-integrated. The extensions of time needed as described in paras 49 and 50 were all able to be managed effectively, within the given financial envelopes. Co-financing was also made available as described, and even increased at the end of the project.

UNEP SUPERVISION AND BACKSTOPPING

109. The task managers on the whole performed satisfactorily, though perhaps some more assistance could have been provided to locate missing project documents at the start of the project, and mediate some of the institutional difficulties that arose during the evaluation.

MONITORING AND EVALUATION

110. The evaluators do not believe that omitting a formal MTR was sensible; it could have identified the problems related to stakeholder outreach and focussed much more on the questions of legacy and sustainability. Such evaluation as did occur might well have been more self-critical. The evaluators feel this would have allowed effective responses to these issues to be developed and implemented by the EA

COMPLEMENTARITY WITH UNEP STRATEGIES AND PROGRAMMES

111. The UNEP POW 2010-2011 notes, *inter alia* that:

"DEWA would play a key role in ensuring that the programme frameworks are based on the best available science and draw upon the most appropriate scientific networks and institutions".

- This project fits well with that ambition, and indeed also UNEPs Ecosystem Management theme, and also has links to other key sub-programmes in its current medium term strategy. The strategies' focus on "New Insights on Water-Land Interactions: Shift in the Management Paradigm", which seeks to provide a better understanding of how water and land interact will be well-served by the projects outputs and outcomes. Albeit with a transboundary emphasis, new knowledge from the project will support the strategies' ambitions to understand how we should manage water and land for maintaining minimum ecological flows, and provide new impetus better integrating water and land management. The project could be said thus to have been "future-proofed" for UNEPs longer-term direction of travel.
- 113. The project also speaks to the desire of UNEP to involve itself in science in the UN system, and this project clearly indicates that cooperation with the full range of actors in the UN system, and their attendant networks of scientists, is the way forward. UNEP is not able, and should not attempt, to lead on science issues when work is already underway, rather it should adopt a convening approach to science issues in which it has a legitimate concern.
- 114. Some aspects of the projects marine results will support the APEC Bali Action Plan¹⁴ which involves UNEP *inter alia*.

"On the MEA side, results from this project can assist both the Convention on Biological Diversity (CBD) and the Convention on migratory species of wild flora and fauna (CMS) implement their work programmes in water-related or water-reliant areas. Finally the results of the project will assist UNEP in its work across the UN system in implementing the SDGs post 2015.

Regarding the Bali Strategic Plan¹⁵ results from this project will assist in the delivery of especially the following thematic areas:

¹⁴ http://www.mofa.go.jp/policy/economy/apec/aomm/action0509.pdf

- (iv) Freshwater resources;
- (v) Conservation of wetlands;
- (vi) Oceans and seas and coastal areas, including regional seas and the protection of the marine environment from land-based activities;
- (xiii) Transboundary conservation and sustainable management of natural resources when agreed by the countries concerned;

And the following cross-cutting issues:

- (ix) Access to scientific and technological information, including information on state-of-the-art technologies;
- (x) Facilitating access to and support for environmentally sound technologies and corresponding know -how;
- (xi) Education and public awareness, including networking among universities with programmes of excellence in the field of the environment".

However, it could be noted that the breadth of this project could assist in many areas of the BSP implementation.

¹⁵ http://www.unep.org/GC/GC23/documents/GC23-6-add-1.pdf

SUMMARY TABLE OF PERFORMANCE RATINGS AGAINST EVALUATION ELEMENTS

Evaluation element	Rating
A. Strategic relevance	HS
B. Achievement of outputs	S
C. Effectiveness: Attainment of project objectives and results	MS
1. Achievement of direct outcomes	MS
2. Likelihood of impact	MU
3. Achievement of project goal and planned objectives	MS
D. Sustainability and replication	U
1. Financial	U
2. Socio-political	N/A
3. Institutional framework	U
4. Environmental	N/A
5. Catalytic role and replication	
E. Efficiency	HS
F. Factors affecting project performance	
1. Preparation and readiness	S
2. Project implementation and management	MU
3. Stakeholders participation and public awareness	U
4. Country ownership and driven-ness	N/A
5. Financial planning and management	
6. UNEP supervision and backstopping	S
7. Monitoring and evaluation	MU
a. M&E Design	MU
b. Budgeting and funding for M&E activities	MU
c. M&E plan Implementation	
Overall project rating	MS

10. CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

- A key question regularly asked by the evaluators was "Are there science advances in IW 115. brought about as a result of this project?" And answer came there none! As we note in paragraph 64; "While the project exposed a range of TDA activities in the context of science behind TDA in the GEFSEC it is unclear if the project materially changed the structure, design or implementation of TDAs", and in paragraph 87; "However, implementation needed personal engagement to carry through this valuable corpus of recommendations (all of which the evaluators endorse), and this was lacking after the project seemed to whimper to a close after the Science Conference. To be regarded as fully effective (as per the ToC) a core of people, fully engaged in outreach and up-date is needed for the long-term." And paragraph 97; "Several interlocutors answered the question 'Has the project had impact on the global scientific community beyond the GEF IW project participants?' by 'Not at all.....'. Among much other material this brought us to our key conclusion (1) that although some elements of the project have been successful, there were enough setbacks and problems to militate against a fully successful final result. Ultimate translation into GEBs, even in optimal circumstance would be indirect and subject to considerable lag times.
- 116. A regional focus was attempted through stakeholders, high level panels from council members and stakeholders. People were engaged in panels encouraging participatory approach of scientists and stakeholders more widely, especially towards project end. Despite this approach, and drawing on ours observations reported in paragraph 97 conclusion 2 is there seemed little connection with a key set of stakeholders the secretariats of MEAs and global programmes which contribute to protecting, purifying, and producing water for the planet.
- 117. **It is also clear from some discussants that IW:**Science suffered from:
 - lack of intellectual process;
 - lack of theoretical framework: and
 - An unclear definition of science.

Paragraph 62 contains the specific comments of the IW STAP member, which we would endorse. So Conclusion 3 is that is that more attention should have been given to a theoretical framework for project design, especially connecting the outputs to the GEF family, from the outset

118. Dealing with waters from mountaintop to mangrove forest, sandbank and the ocean beyond, the coherent thread in the IW portfolio is its "transboundariness". Much is self-evident, but while for example marine fisheries are affected by immediate habitat degradation they are also affected by

pollution from adjacent marine systems, and pollutants and sedimentation from land based sources. A Template design for the project tried to defragment the problem of "siloisation" within IW. We touch on these issues in paragraphs 64 and 90, we also note that these problems are perennial, being referenced in Mee et al¹⁶ in the following way "Despite these encouraging signs for the GEF, *the challenge of 'sectoralisation' as well as overcoming a silo mentality in its own operations, is an enormous one...* despite attempts to defragment **conclusion 4** is that **too many walls remain within the IW focal area – not to mention between IW and other focal areas.**

- 119. One comment volunteered was "I had hoped that the IW:Science project would have resulted in targeted research topics and issues being identified". But there is little of this in the new GEF strategy so obviously it did not happen. It is not of course too late to ensure the outcomes of the project continue to reinforce IW projects as they are implemented and new ones developed. Despite an obvious need to raise the profile of social sciences (in comparison with natural sciences) the IW:Science project was not mandated to mainstream social sciences only to look at the full range of science use in the IW projects. This issue was in fact highlighted at the Bangkok conference, yet social science underpinning is still hard to find in IW projects. Comments from paragraphs 63, 66 and 88 and especially 92 all point to Conclusion 5 Appropriate social science context is critical for the inclusion of adaptive management in projects, but there are open questions around how to integrate this in both design and implementation.
- 120. The general consensus from among those interviewed was that IW:Science is precisely the kind of initiative GEF should always have been running, and it should certainly repeat it in the future. Conclusion 6 is Targeted future research needs should be identified for IW projects this could be done by the STAP with a budget allocated or by a broader science advisory group to the CEO.
- 121. Following our discussion of difficulties associated with document discovery and management in paragraphs 60, 62 and 78, Conclusion 7 is that document control curation and archiving should be much better managed across the GEF family.
- 122. Much of the evidence adduced above shows the undue focus on IW:Learn with its high profile in the GEFSEC, unlike IW:Science, and IW:Science being seen as a merely portfolio of reports it is clear the GEFSEC should play more of a role as a steward of good science in the projects, ensuring better reports on the science used, discovered or found wanting in the project implementation phase. We particularly note the role of UNEP in IW:Science and science matters generally should be seen as a convening one, rather than being a key actor. Conclusion 8 is that GEFSEC and the GEF Family should have paid more attention to the role of science in project implementation.
- Disappointment was expressed that the GEFSEC has not taken up the project outputs. UNU-INWEH offered to convene (at their cost) a meeting of the GEFSEC, STAP and other bodies to The GEF but this was not taken up. Conclusion 9 is that Uptake by the GEFSEC and others of the outputs and outcomes of the project; in particular the recommendations contained in the

¹⁶ Mee, L.D., Dublin, H.T., Eberhard, A.A. 2008. Evaluating the Global Environment Facility: A goodwill gesture or a serious attempt to deliver global benefits? *Global Environnemental Change*. 18. 800-810.

synthesis report has been weak. The project should have had more focus on encouraging such uptake.

124. Finally, we **conclude** (10) **from several examples** (including those cited paragraphs 77, 82 and 85) **that this project** (and it is far from unique) **suffered from a range of institutional shortcomings.** Many of these were preventable, or could have been reduced with greater goodwill from "competing" institutions. But **it is the role of the task manger to identify, monitor and control such issues and we feel more could have been done in this regard.** However we also recognise the large case-loads placed on the desks of task managers.

LESSONS LEARNED

125. It was clear from the difficulties associated with document discovery that Data base development must be rooted in proper documentation, have targeted users and requires adequate curation/archiving of project documentation. While this project was IW focused it is likely these issues are endemic within the GEF process.

Lesson1 is that the GEF Family should develop its document control systems across the whole GEF family to ensure that when data bases are developed it is easy to discover and incorporate documentation.

- 126. The failure to use the database effectively, being rescued only by the IW:Learn conference as launch mechanism for the products. It is also clear that a date base should not just be created with the expectation all will use it much broader outreach is needed.
 - Lesson 2 is that the GEF family must be more pro-active in reaching beyond the GEF Wall, and taking initiatives to link with the wider global water science networks, for IW and other focal areas.
- 127. The failure to maintain the social networking side of the database means it is unattractive except to highly convinced or dedicated users. The fact that the SLN now sits on a very obscure part of the UNU-INWEH website does not help.
 - Lesson 3 is that when Databases are developed with social networking components they should be well projected, well-advertised and have ease of access by all.
- 128. Difficulties (understandable) between institutions over ownership, management and access to data sources did impede the initial progress of the project, although probably have not affected the final results. None the less, the evaluators see a fourth **Lesson** being that **any future projects of this kind (i.e. examining the science basis of part of the GEF portfolio activities) should anticipate the possibility of poor inter-institutional interactions in developing and implementing the project.**

RECOMMENDATIONS

- 129. IW:Science is still seen as a one-off, with not a need to repeat, or even maintain. There is an obvious need for Science; not simply for science sake but for policy development, including the need for better grip on economic valuation. All-in-all the GEFSEC focal action aspiration is to get GEF family to share work across global community, and take research effort and results into knowledge based management, with a focus on investment in KM for the longer term,. In that sense IW:Learn was seen as more relevant than IW:Science but it should not have become an either-or dichotomy. Recommendation 1 is that all GEF IW projects should now have science explicitly exposed and evident, with science being updated during the project's management and monitoring phases.
- 130. That the Science Conference had limited success is clear. That was because of invitational issues, timing, and the closed community to which the meeting was offered. The question Should there be a 2nd IW Science Conference? was posed by the evaluators to several discussants. In general terms, replies favoured "no" or "only with very clear terms of reference, such as how *can GEF projects build on science work in policy arena*". In contrast the IW:Learn bi-annual IW community meetings are strongly supported. There was, apparently, a proposal that the IW:Learn conferences alternate with a Science Conference. But here lies the problem The IW community is a very self-enclosed, self-reinforcing community which needs to expand outward and connect more effectively with the global water community and beyond. The evaluators therefore do not support alternating biennial science and general IW conferences the frequency would simply be too great.
- 131. We note that GBIF has a science conference attached to its Governing council business meetings, where a specific theme is dealt with by scientists external to the mainstream GBIF process. This is a very successful event, and ensures the Governing Council can be *au courant* with the latest science. We therefore recommend (2) that consideration be given to 4 yearly opportunities for the IW:Learn conference to have an added science component, which would feature a particular theme decided at the previous IW:Learn conference. These science add-on events would draw in invited speakers and attendees, and within the chosen theme deal with gap analysis, horizon scanning and other cutting edge issues for a 2-day science event. In this way the appeal and focus of the IW conferences would be expanded, and the science agenda kept up-to-date. We further recommend that such an event be organised by UNU-INWEH, with the next due in 2016.
- 132. The considerable efforts in founding the database suggest it is worth continued maintenance and annual updating. The question would be who would be responsible for this? One solution is that IW Learn should be funded to carry the IW:Science legacy forward and to keep it updated. An alternate possibility is that UNU-INWEH should be given a small funding supplement to perform this task. A key issue surrounds the database and its maintenance. At time of writing we understand it is physically on UNU server. IW:Learn could "manage" the database through links to the UNU-INWEH server, or take it completely in-house. There are several solutions to this issue, but we recommend (3) a decision should be taken to continue and update the database, determine its long-term home, and fund the host organisation accordingly. We do not recommend the need for "social networking" in this process, that can evolve if it is required, but top-down imposition of such structures rarely work as in this case.
- 133. Two final recommendations have occurred to the evaluators which arise from the project specificities but are beyond its immediate remit. However we put them forward for thought. First, the

issue of why IW:Science and not similar projects for other areas; has been raised with us on several occasions. The answer also comes, when we seek it, that IW is unusual as it has no convention to provide mechanisms for technical back-stopping, as is the case with other focal areas. While this articulation seems sensible, we would argue that the successful elements of this project suggest wider use of its approach, and therefore we **recommend** (4) the GEFSEC should **examine ways for this project to be replicated across all GEF Focal areas, provided the faults we have identified are fixed**.

134. Our final recommendation is linked to this – in that we feel that such an operation where GEF funding is not large and the co-financing is almost all in-kind instructional and personal support that managing an MSP with all the attendant trappings serves only to add delays and create difficulties for all concerned. Therefore we **recommend (5)** that **for any future projects involving KM or similar, which are country independent, consideration should be given to funding them as corporate grants, or deliberately outsourced, directly from GEFSEC.** Of course, GEF Council approval and all the accountabilities need to be built in to such a process.

11. ANNEXES

ANNEX 1 Response to Stakeholder comments received but not (fully) accepted by the evaluators

No such comments were received by the evaluators. TO BE UPDATED.

ANNEX 2 INTERVIEW LIST AND SCHEDULE

Name	Organisation / Position	Interview date / method
Andrew Dansie	Univ. of Oxford. Project Coordinator	12/04/2014 – and 01/05/2014(in
	dansie@inweh.unu.edu	person)
Alice Aureli	UNESCO-IHP (project leader on	17/04/2014 (in person)
	groundwater)	
Blanca Jimenez-Cisneros	Secretary, UNESCO-IHP Potential	17/04/2014 (in person)
	user and representative of the Global	
	Water Community (GWC)	
Laurence Mee	Chair of the Scientific Steering Group	25/04/2014 (in person)
	(SSG)	
Naoko Ishii	CEO and Chair of Global Environment	25/04/2014 (phone)
	Facility	
Douglas Taylor	Consultant and former secretary GEF-	28/04/2014 (Skype)
	STAP	
Chris Severin and Leah	IW specialists in GEFSEC	29/04/14 (phone)
Karrer		
Tom Hammond	Secretary GEF-STAP	29/04/14 (Skype)
Nicholas Bonvoisin and	Secretary to the Convention on the	30/04/2014(phone)
Sonja Koppel	Protection and Use of Transboundary	
,	Watercourses and International Lakes	
Afonso Do Ó	Project Officer, WWC	30/04/2014 (Skype)
Astrid Hillers	Snr IW specialist GEFSEC	30/04/2014 (phone)
Prof Royal Gardner	Chair, Ramsar Convention STRP,	05/05/2014 (Skype)
Meryl Williams	former GEF-STAP IW member	06/05/2014 (Skype)
David Coates	Inland waters specialist, CBD	06/05/2014(Skype)
Isabelle Vanderbeck	current UNEP Task Manager	06/05/2014 (Skype)
Tessa Goverse	UNEP Task manager at Inception	13/05/2014 (Skype)
Zafar Adeel & Colin Mayfield	UNU-INWEH	28/04/2014 (Skype)
Alfred Duda	Former Snr IW Specialist GEFSEC	29/04/2014 (phone)
Jakob Granit	STAP IW member	29/04/2014 (in person)
Mish Hamid	IW:Learn Project Manager	15/05/2014 (Skype)

ANNEX 3 REVIEW OF OVERALL QUALITY OF PROJECT DESIGN

Relevance	Evaluation Comments	Prodoc reference
Are the intended results likely to contribute to UNEPs Expected Accomplishments and programmatic objectives?	Successful project implementation will lead to better understanding of the science behind, and approaches to the GEF IW programme, and would assist UNEP in its work on Transboundary waters; both freshwaters and marine systems. Results will also be available to a range of UNEP-linked MEAs	GEFSEC PROJECT ID: 3343 for CEO approval was used alongside the ToRs of 31January and the 2007 PIF. Used throughout
Does the project form a coherent part of a UNEP-approved programme framework?	This is not entirely clear at the inception stage although the project documentation (2007 PIF) reports that" The reflective process leading to the science synthesis, and the synthesis itself, will both be powerful contributions to portfolio-wide dialog on the use of science for addressing important issues in future IW projects. In particular, the methodological underpinnings for Transboundary Diagnostic Analysis (TDA) can be strengthened, as can its use by decision-makers as a tool for action. TDA is critical for identifying and reaching consensus on the nature of the core transboundary challenges within ecosystems and their causal relationship with human activities"	
Is there complementarity with other UNEP projects, planned and ongoing, including those implemented under the GEF?	The outputs will ensure UNEP projects in the freshwater and marine programmes, as well as any GEF-IW specific projects	

		implemented by UNEP are able to be implemented in a more effective way; in that way there is complementarity	
Are the project's objectives and implementation strategies consistent with:	i) Sub-regional environmental issues and needs?	Not clear at inception	
strategies consistent with.	ii) the UNEP mandate and policies at the time of design and implementation?	yes	
	iii) the relevant GEF focal areas, strategic priorities and operational programme(s)? (if appropriate)	Yes, very consistent with IW focal area.	
	iv) Stakeholder priorities and needs?	The objectives are consistent with the full range of GEF and Agency stakeholders. There are some open questions about how widely the stakeholder reach is – there seems to an assumption that simple "osmosis" will take the projects results to the Global water community – that aspect may need some stronger directed effort.	
	Overall rating for Relevance	S	
Intended Results and Causal	lity		
Are the objectives realistic?		Yes, with appropriate resources and institutional support, although they are pitched at low level.	
Are the causal pathways from services] through outcomes [cl behaviour] towards impacts cl described? Is there a clearly printervention logic for the projection.	hanges in stakeholder early and convincingly resented Theory of Change or	The theory of change is rather simplistic and needs more work, and the outcomes are poorly formulated. The intervention logic needs careful examination during the evaluation.	
Is the timeframe realistic? Wh anticipated project outcomes c stated duration of the project?		Yes, very likely	
Are the activities designed within the project likely to produce their intended results?		The activities foreseen within the project have potential to produce the	

	intended results, but as	
	mentioned in the previous	
	section there are some open	
	questions about how	
	widely the stakeholder	
	reach is – especially in-	
	country project designers,	
	and even some of the GEF	
	family.	
Are activities appropriate to produce outputs?	yes	
Are activities appropriate to drive change along the intended	The path from outputs to	MU
causal pathway(s)?	outcomes to impacts	
	becomes very fuzzy and ill-	
	defined, with considerable	
	effort in co-ordination and	
	only one project director.	
	Project impact is not	
	addressed well, as activities	
	focus on deliverables, with	
	insufficient outreach and	
	promotion towards project	
	designers (and decision	
	makers in the IW arena)	
Are impact drivers, assumptions and the roles and capacities	Not well; there is a high	U
of key actors and stakeholders clearly described for each key	degree of assumption that	O
causal pathway?	scientists and others will	
Cuasa paur ay	eagerly take up and use the	
	project's products	
Overall rating for Intended Results and causality	MS - S	
Efficiency		
Are any cost- or time-saving measures proposed to bring the	Not really relevant – the	
project to a successful conclusion within its programmed	links between this project	
budget and timeframe?	with a new phase of	
	IW:Learn may assist the	
	timely and successful	
	conclusion of the project.	
	But as it envisages a link to	
	science conferences there	
	could also be "drag" in the	
	other direction.	
Does the project intend to make use of / build upon pre-	Yes, the project will use	
existing institutions, agreements and partnerships, data	exclusively existing	
sources, synergies and complementarities with other	information, especially that	
initiatives, programmes and projects etc. to increase project	which has not previously	
efficiency?	been well-used.	
Overall rating for Efficiency	HS	
Overall rating for Efficiency	115	
Sustainability / Replication and Catalytic effects		

Does the project design present sustaining outcomes / benefits?		The project legacy will be substantial; questions remain over the effectiveness of sustainability of the materials resulting from the project – especially longevity of information, methods etc. in the face of rapidly changing paradigms in science.	
Does the design identify the social or political factors that may influence positively or negatively the sustenance of project results and progress towards impacts? Does the design foresee sufficient activities to promote government and stakeholder awareness, interests, commitment and incentives to execute, enforce and pursue the programmes, plans, agreements, monitoring systems etc. prepared and agreed upon under the project?		One feature of the project is broadening the activities and appeal of the GEF IW theme to the global water community. This is a very ambitious goal for which there seems aspiration but not good planning. This links to previous box.	
If funding is required to sustain project outcomes and benefits, does the design propose adequate measures / mechanisms to secure this funding?		No, this aspect is also rather unclear	
Are there any financial risks that may jeopardize sustenance of project results and onward progress towards impact?		Almost none of the co- finance was in cash; the project clearly depends on good use of the in-kind co- finance to complete it	
Does the project design adequately describe the institutional frameworks, governance structures and processes, policies, sub-regional agreements, legal and accountability frameworks etc. required to sustain project results?		Mostly, although there is ambiguity about the involvement of <i>e.g.</i> LOICZ, ELME which are programmes rather than institutions. The immediate governance structure seems clear enough.	
Does the project design identify environmental factors, positive or negative, that can influence the future flow of project benefits? Are there any project outputs or higher level results that are likely to affect the environment, which, in turn, might affect sustainability of project benefits?		The project design seems sound for making the science more availability to GEFSEC and GEF community, less so with regard to the global water science community. The opportunity to develop a more cohesive and coherent approach to the complex IW focal area seems missing.	
Does the project design foresee adequate measures to	i) technologies and approaches show-cased by the	In part, but this will require	

catalyse behavioural changes in terms of use and	demonstration projects;	critical examination	
application by the relevant stakeholders of (e.g.):	ii) strategic programmes and plans developed	ditto	
	iii) assessment, monitoring and management systems established at a national and sub-regional level	Not really relevant	
Does the project design foresed contribute to institutional chan the catalytic role of the project institutional uptake or mainstreapproaches in any regional or a projects]	ges? [An important aspect of is its contribution to earning of project-piloted	The project concerns building information bases available at global level to help in designing and implementing future IW projects. It is not in an immediate sense likely to contribute to institutional changes nationally, although there may be some at GEF-SEC and IA level.	
Does the project design foresect contribute to policy changes (of policy)?	e adequate measures to on paper and in implementation	yes	
Does the project design foresee adequate measures to contribute to sustain follow-on financing (catalytic financing) from Governments, the GEF or other donors?		There are some doubts here regarding the degree of commitment which will be needed to maintain project legacy – database curation and maintenance is not always well handled, and the primary curator needs identification.	
Does the project design foresection opportunities for particular ind ("champions") to catalyse char would not achieve all of its res	ividuals or institutions age (without which the project	Implemented as designed, the project will allow individual and institutional champions to catalyse change in overall approaches to current and future IW project implementation and impact.	
Are the planned activities likel ownership by the main national necessary to allow for the projection.	l and regional stakeholders	The ownership will be by GEF-SEC and UN agencies. National and regional stakeholders may draw on the projects results, but they are unlikely to "own" them, but for the project to be effective they must "use" them. The international	

	agencies will need to undergo careful planning of database curation and maintenance to ensure sustainability.	
Overall rating for Sustainability / Replication and Catalytic effects	MU - MS	
Risk identification and Social Safeguards		
Are critical risks appropriately addressed?	The risks which are most critical involve the availability and utility of the data in the project proposals and results going back to the initiation of the IW focal area. Those risks are addressed.	
Are assumptions properly specified as factors affecting achievement of project results that are beyond the control of the project?	Most assumptions fit are specified as factors which could affect the project results and beyond control of the project. However using the assumption "Effective WG reports as basis for comparative analysis" several times is not – the working group is absolutely a core of the project, and should be expected to perform as described, not be an external assumption outside project control	
Are potentially negative environmental, economic and social impacts of projects identified?	As a project investigating science matters there are no external impacts, which may occur in more typical GEF projects.	
Overall rating for Risk identification and Social Safeguards	S	
Governance and Supervision Arrangements		
Is the project governance model comprehensive, clear and appropriate?	Yes, with the reservation that it seems a little overly- complex to achieve the task	
Are roles and responsibilities clearly defined?	yes	
Are supervision / oversight arrangements clear and appropriate?	There is some lack of clarity with the precise roles and responsibilities of	

		the agencies vs.	
		Programmes, particularly since the late addition of	
		close links with the	
		IW:Learn second phase project	
Overall rating for	Governance and Supervision Arrangements	S	
Management, Execution and	Partnership Arrangements		
Have the capacities of partners	s been adequately assessed?	apparently	
Are the execution arrangemen	ts clear?	yes	
Are the roles and responsibility partners properly specified?	ies of internal and external	yes	
Overall rating for	Management, Execution and Partnership Arrangements	S	
Financial Planning / budgeting			
Are there any obvious deficier planning?	ncies in the budgets / financial	No, but large amount of in- kind needs clarification	
Is the resource utilization cost in respect of resource mobilization	effective? Is the project viable ation potential?	yes	
Are the financial and administ flows of funds clearly describe		yes	
Overall rating for F	inancial Planning / budgeting	S	
Monitoring			
Does the logical framework:		The logical framework	
Capture the key element	s of the Theory of Change for	seems rather simple. Indicators for verification	
the project?	~ <u>,</u>	are also rather generalised	
have 'SMART' indicato	rs for outcomes and objectives?	and the indicators while seemingly SMART in the	
have appropriate 'means'		main could perhaps be	
identify assumptions in a	an adequate manner?	Smarter. The assumptions are clear and appropriate.	
Are the milestones and perform and sufficient to foster manage higher level objectives?		yes	
Is there baseline information in relation to key performance indicators?		Baseline information for this project is in fact the "meat" of the project itself.	
Has the method for the baselin	e data collection been	yes	

explained?		
Has the desired level of achievement (targets) been specified for indicators of outcomes and are targets based on a reasoned estimate of baseline?	See above – yes.	
Has the time frame for monitoring activities been specified?	yes	
Are the organisational arrangements for project level progress monitoring clearly specified?	yes	
Has a budget been allocated for monitoring project progress in implementation against outputs and outcomes?	yes	
Overall, is the approach to monitoring progress and performance within the project adequate?	Could be improved	
Overall rating for Monitoring	MS	
Evaluation		
Is there an adequate plan for evaluation?	Yes, including annual measurement of verification for performance; annual PIR and appropriate audit. The SC meetings are seen as part of the evaluation, which is not exactly neutral evaluation.	
Has the time frame for evaluation activities been specified?	Yes, mid-term and terminal; although there is ambiguity over the actuality of the mid-term evaluation and no funds appear to be allocated, it being set as part of the steering Committee foreseen at that time.	
Is there an explicit budget provision for mid-term review and terminal evaluation?	yes	
Is the budget sufficient?	yes	
Overall rating for Evaluation	MS	

ANNEX 4. Members of the Working Groups.

${\it Listed in groups according working group member name in alphabetical order}$

Vati	onality/Name	Professional Title & Address	Email & Telephone
Stee	ring Committee (Memb	pers and Observers)	
a e	Al Duda	Senior Advisor, International Waters, GEF	Email: aduda@thegef.org
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ANNEXE 5 SUMMARY CO-FINANCE INFORMATION AND A STATEMENT OF PROJECT EXPENDITURE BY ACTIVITY

Project Costs

Component/sub-component	Estimated cost at	Actual Cost	Expenditure ratio
	design		(actual/planned)
1PROJECT PERSONNEL	370,000	315,240.82	0.85
COMPONENT#			
(Developing the database and SLN)			
	240,000	200,000,70	1.01
2 SUB-CONTRACT COMPONENT	240,000	290,000.50	1.21
(Reports preparation)			
3 TRAINING COMPONENT	350,000	356,784.54	1.02
(Working Group meeting costs)			
50 MISCELLANEOUS	40,000	37,974.14	0.95
COMPONENT (Includes T/E)	40,000	37,974.14	0.93
COMPONENT (Includes 1/E)			
Total	1,000,000	1,000,000	1.00

Co-financing

Co financing (Type/Source)	IA own Financing (mill US\$)		Other* (mill US\$)		Total (mill US\$)		Total Disbursed (mill US\$)
	Planned	Actual	Planned	Actual	Planned	Actual	
- Grants			50,000	50,000	50,000	50,000	50,000
- In-kind support	100,000	100,000	879,000	1,050,000	979,000	1,150,000	1,150,000
Totals	100,000	100,000	929,000	1,100,000	1,029,000	1,200,000	1,200,000

ANNEXE 6. Brief CVs of the consultants

Prof. Peter Bridgewater was Chair of the UK Joint Nature Conservation Committee until June 1, 2014 and currently holds Visiting Professorships at UNU- IAS and Beijing Forestry University. He held the posts of Secretary General of the Ramsar Convention (2003 – 2007); Director, Division of Ecological Sciences in UNESCO 1999-2000, prior to that working in senior posts for the Australian Government. He has served as Chairman of the International Whaling Commission (1995-1997); and as Commissioner of the Independent World Commission on the Oceans (1995-98).

A geographer with an academic background in environmental management, *Anton Earle* specialises in transboundary water resource management, facilitating the interaction between governments, basin organisations and other stakeholders for risk-reduction and infrastructure development on international watercourses. Mr Earle is Director of the African Regional Centre of the Stockholm International Water Institute (SIWI) located in Pretoria, South Africa..

ANNEXE 7. EVALUATION TERMS OF REFERENCE

Objective and Scope of the Evaluation

In line with the UNEP Evaluation Policy¹⁷, the UNEP Evaluation Manual¹⁸ and the Guidelines for GEF Agencies in Conducting Terminal Evaluations¹⁹, the terminal evaluation of the 'Enhancing the use of science in International Waters Project to improve project results' is undertaken after completion of the project to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP, the GEF and their executing partners – UNU-INWEH and core project partners: UNEP-DEWA, UNESCO Water division, SAMS and LOICZ in particular. Therefore, the evaluation will identify lessons of operational relevance for future project formulation and implementation. It will focus on the following sets of key questions, based on the project's intended outcomes, which may be expanded by the consultants as deemed appropriate:

- a) Has scientific learning from the IW project portfolio been documented in a way that is useful and accessible?
- b) Did the synthesis process lead to the identification of important new generalisations on IW, gaps in knowledge, critical priorities or indicators for results-based management?
- c) Has the project contributed to the development of a sustainable capacity for knowledge sharing, mutual learning and strategic priority setting for the IW portfolio?
- d) Have the project activities contributed to the effectiveness of transboundary diagnostic analysis?
- e) Overall, has the project led to increased use of science in the GEF IW focal areas in priority setting, knowledge sharing and results based adaptive management?
- f) Has the project had impact on the global scientific community beyond the GEF IW project participants?

Overall Approach and Methods

- 1. The Terminal Evaluation of the Project 'Enhancing the use of science in International Waters Project to improve project results' will be conducted by independent consultants under the overall responsibility and management of the UNEP Evaluation Office (Nairobi), in consultation with the UNEP GEF Coordination Office (Nairobi), and the UNEP Task Manager at UNEP/DEWA.
- 2. It will be an in-depth evaluation using a participatory approach whereby key stakeholders are kept informed and consulted throughout the evaluation process. Both quantitative and qualitative evaluation

¹⁷ http://www.unep.org/eou/StandardsPolicyandPractices/UNEPEvaluationPolicy/tabid/3050/language/en-US/Default.aspx

 $^{^{18} \} http://www.unep.org/eou/StandardsPolicyandPractices/UNEPEvaluationManual/tabid/2314/language/en-US/Default.aspx$

¹⁹ http://www.thegef.org/gef/sites/thegef.org/files/documents/TE_guidelines7-31.pdf

methods will be used to determine project achievements against the expected outputs, outcomes and impacts.

- 3. The findings of the evaluation will be based on the following:
 - (a) A desk review of project documents and others including, but not limited to:
 - Relevant background documentation, inter alia UNEP and GEF policies, strategies and programmes pertaining to IW
 - Project design documents; Annual Work Plans and Budgets or equivalent, revisions to the logical framework and project financing;
 - Project reports such as progress and financial reports from the executing partners to the Project Coordination Unit (PCU) and from the PCU to UNEP; Steering Group meeting minutes; annual Project Implementation Reviews and relevant correspondence;
 - Documentation related to project outputs: working group reports, synthesis studies, recommendations, indicators etc.
 - SLN website http://inweh.unu.edu/iw-science/

(b) Interviews with:

- Project management and execution support
- UNEP Task Manager and Fund Management Officer, in Washington DC
- Relevant staff of GEF Secretariat; and
- The project manager and other relevant staff UNU-INWEH
- Core project partners: UNEP-DEWA, UNESCO Water division, SAMS and LOICZ
- Participants in working groups
- SLN members
- Website users
- Representatives of other multilateral agencies and other relevant organisations.

(c) Country Visit

If practical one of the team members could visit the University's International Network on Water, Environment and Health headquarters in Canada

Key Evaluation principles

- 4. Evaluation findings and judgements should be based on **sound evidence and analysis**, clearly documented in the evaluation report. Information will be triangulated (i.e. verified from different sources) to the extent possible, and when verification was not possible, the single source will be mentioned. Analysis leading to evaluative judgements should always be clearly spelled out.
- 5. The evaluation will assess the project with respect to a minimum set of evaluation criteria grouped in four categories: (1) Attainment of objectives and planned results, which comprises the assessment of outputs achieved, relevance, effectiveness and efficiency and the review of outcomes towards impacts; (2) Sustainability and catalytic role, which focuses on financial, socio-political, institutional and ecological factors conditioning sustainability of project outcomes, and also assesses efforts and achievements in terms of replication and up-scaling of project lessons and good practices; (3) Processes affecting attainment of project results, which covers project preparation and readiness, implementation approach and management, stakeholder participation and public awareness, country ownership/driven-ness, project finance, UNEP supervision and backstopping, and project monitoring and evaluation systems; and (4) Complementarity with the UNEP strategies and programmes. The evaluation consultants can propose other evaluation criteria as deemed appropriate.

- 6. **Ratings.** All evaluation criteria will be rated on a six-point scale. However, complementarity of the project with the UNEP strategies and programmes is not rated. Annex 2 provides detailed guidance on how the different criteria should be rated and how ratings should be aggregated for the different evaluation criterion categories.
- 7. In attempting to attribute any outcomes and impacts to the project, the evaluators should consider the difference between what has happened with and what would have happened without the project. This implies that there should be consideration of the baseline conditions and trends in relation to the intended project outcomes and impacts. This also means that there should be plausible evidence to attribute such outcomes and impacts to the actions of the project. Sometimes, adequate information on baseline conditions and trends is lacking. In such cases this should be clearly highlighted by the evaluators, along with any simplifying assumptions that were taken to enable the evaluator to make informed judgements about project performance.
- 8. As this is a terminal evaluation, particular attention should be given to learning from the experience. Therefore, the "Why?" question should be at front of the consultants' minds all through the evaluation exercise. This means that the consultants needs to go beyond the assessment of "what" the project performance was, and make a serious effort to provide a deeper understanding of "why" the performance was as it was, i.e. of processes affecting attainment of project results (criteria under category 3). This should provide the basis for the lessons that can be drawn from the project. In fact, the usefulness of the evaluation will be determined to a large extent by the capacity of the consultants to explain "why things happened" as they happened and are likely to evolve in this or that direction, which goes well beyond the mere review of "where things stand" today.

Evaluation criteria Strategic relevance

- 9. The evaluation will assess, in retrospect, whether the project's objectives and implementation strategies were consistent with: i) Sub-regional environmental issues and needs; ii) the UNEP mandate and policies at the time of design and implementation; and iii) the GEF Climate Change focal area, strategic priorities and operational programme(s).
- 10. It will also assess whether the project objectives were realistic, given the time and budget allocated to the project, the baseline situation and the institutional context in which the project was to operate.

Achievement of Outputs

11. The evaluation will assess, for each component, the project's success in producing the programmed results as presented in Table 2 above, both in quantity and quality, as well as their usefulness and timeliness. Briefly explain the degree of success of the project in achieving its different outputs, cross-referencing as needed to more detailed explanations provided under Section F (which covers the processes affecting attainment of project objectives). The achievements under the regional and national demonstration projects will receive particular attention.

Effectiveness: Attainment of Objectives and Planned Results

- 12. The evaluation will assess the extent to which the project's objectives were effectively achieved or are expected to be achieved.
- 13. The evaluation will reconstruct the Theory of Change (ToC) of the project based on a review of project documentation and stakeholder interviews. The ToC of a project depicts the causal pathways from project outputs (goods and services delivered by the project) over outcomes (changes resulting from the use made by key stakeholders of project outputs) towards impact (changes in environmental benefits and living conditions). The ToC will also depict any intermediate changes required between project outcomes and impact, called intermediate states. The ToC further defines the external factors that influence change along

the pathways, whether one result can lead to the next. These external factors are either drivers (when the project has a certain level of control) or assumptions (when the project has no control).

- 14. The assessment of effectiveness will be structured in three sub-sections:
 - (c) Evaluation of the achievement of direct outcomes as defined in the reconstructed ToC. These are the first-level outcomes expected to be achieved as an immediate result of project outputs.
 - (d) Assessment of the likelihood of impact using a Review of Outcomes to Impacts (ROtl) approach as summarized in Annex 6 of the TORs. Appreciate to what extent the project has to date contributed, and is likely in the future to further contribute to changes in stakeholder behaviour as a result of the project's direct outcomes, and the likelihood of those changes in turn leading to changes in the natural resource base, benefits derived from the environment and human living conditions.
 - (e) Evaluation of the achievement of the formal project overall objective, overall purpose, goals and component outcomes using the project's own results statements as presented in original logframe (see Table 2 above) and any later versions of the logframe. This sub-section will refer back where applicable to sub-sections (a) and (b) to avoid repetition in the report. To measure achievement, the evaluation will use as much as appropriate the indicators for achievement proposed in the Logical Framework Matrix (Logframe) of the project, adding other relevant indicators as appropriate. Briefly explain what factors affected the project's success in achieving its objectives, cross-referencing as needed to more detailed explanations provided under Section F.
- 15. There are some effectiveness questions of specific interest which the evaluation should certainly consider:
 - How effective is the data base/inventory, developed by the project in capturing and synthesising new science. How user friendly is it?
 - Are the synthesis reports written in a clear and useful manner?
 - How SMART²⁰ are the recommendations arising from the synthesis of new science?
 - How useful are the proxy indicators developed by the project?
 - How effective has the SLN been in reaching key stakeholders within and outside GEF?
 - How accessible and useful do key stakeholders find the SLN?

Sustainability and replication

- 16. Sustainability is understood as the probability of continued long-term project-derived results and impacts after the external project funding and assistance ends. The evaluation will identify and assess the key conditions or factors that are likely to undermine or contribute to the persistence of benefits. Some of these factors might be direct results of the project while others will include contextual circumstances or developments that are not under control of the project but that may condition sustainability of benefits. The evaluation should ascertain to what extent follow-up work has been initiated and how project results will be sustained and enhanced over time. The reconstructed ToC will assist in the evaluation of sustainability.
- 17. Four aspects of sustainability will be addressed:
 - (a) Socio-political sustainability. Are there any social or political factors that may influence positively or negatively the sustenance of project results and progress towards impacts? Is the level of ownership by the main national and regional stakeholders sufficient to allow for the project results to be sustained? Are there sufficient government and stakeholder awareness, interests, commitment and incentives to execute, enforce and pursue the programmes, plans, agreements, monitoring systems etc. prepared and agreed upon under the project?

²⁰ SMART : specific, achievable, measurable, realistic, time-bound.

- (b) Financial resources. To what extent are the continuation of project results and the eventual impact of the project dependent on continued financial support? What is the likelihood that adequate financial resources²¹ will be or will become available to implement the programmes, plans, agreements, monitoring systems etc. prepared and agreed upon under the project? Are there any financial risks that may jeopardize sustenance of project results and onward progress towards impact?
- (c) Institutional framework. To what extent is the sustenance of the results and onward progress towards impact dependent on issues relating to institutional frameworks and governance? How robust are the institutional achievements such as governance structures and processes, policies, sub-regional agreements, legal and accountability frameworks etc. required to sustaining project results and to lead those to impact on human behaviour and environmental resources?
- (d) Environmental sustainability. Are there any environmental factors, positive or negative, that can influence the future flow of project benefits? Are there any project outputs or higher level results that are likely to affect the environment, which, in turn, might affect sustainability of project benefits? Are there any foreseeable negative environmental impacts that may occur as the project results are being up-scaled?
- 18. **Catalytic role and replication**. The *catalytic role* of GEF-funded interventions is embodied in their approach of supporting the creation of an enabling environment and of investing in pilot activities which are innovative and showing how new approaches can work. UNEP and the GEF also aim to support activities that upscale new approaches to a national, regional or global level, with a view to achieve sustainable global environmental benefits. The evaluation will assess the catalytic role played by this project, namely to what extent the project has:
 - (a) catalyzed behavioural changes in terms of use and application by the relevant stakeholders of: i) new learning ii) priorities and recommendations iii) tools, generated by the synthesis studies and shared through the SLN.
 - (b) provided incentives (social, economic, market based, competencies etc.) to contribute to catalyzing changes in stakeholder behaviour;
 - (c) contributed to institutional changes. An important aspect of the catalytic role of the project is its contribution to institutional uptake or mainstreaming of project-piloted approaches in the regional and national demonstration projects;
 - (d) contributed to policy changes (on paper and in implementation of policy);
 - (e) contributed to sustained follow-on financing (catalytic financing) from Governments, the GEF or other donors;
 - (f) created opportunities for particular individuals or institutions ("champions") to catalyze change (without which the project would not have achieved all of its results).
- 19. Replication, in the context of GEF projects, is defined as lessons and experiences coming out of the project that are replicated (experiences are repeated and lessons applied in different geographic areas) or scaled up (experiences are repeated and lessons applied in the same geographic area but on a much larger scale and funded by other sources). The evaluation will assess the approach adopted by the project to promote replication effects and appreciate to what extent actual replication has already occurred or is likely to occur in the near future. What are the factors that may influence replication and scaling up of project experiences and lessons?

Efficiency

Those resources can be from multiple sources, such as the public and private sectors, income generating activities, other development projects etc.

20. The evaluation will assess the cost-effectiveness and timeliness of project execution. It will describe any cost- or time-saving measures put in place in attempting to bring the project as far as possible in achieving its results within its programmed budget and (extended) time. It will also analyse how delays, if any, have affected project execution, costs and effectiveness. Wherever possible, costs and time over results ratios of the project will be compared with that of other similar interventions. The evaluation will give special attention to efforts by the project teams to make use of/build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. to increase project efficiency.

Factors and processes affecting project performance

- 21. **Preparation and readiness**. This criterion focuses on the quality of project design and preparation. Were project stakeholders²² adequately identified? Were the project's objectives and components clear, practicable and feasible within its timeframe? Were the capacities of executing agencies properly considered when the project was designed? Was the project document clear and realistic to enable effective and efficient implementation? Were the partnership arrangements properly identified and the roles and responsibilities negotiated prior to project implementation? Were counterpart resources (funding, staff, and facilities) and enabling legislation assured? Were adequate project management arrangements in place? Were lessons from other relevant projects properly incorporated in the project design? What factors influenced the quality-at-entry of the project design, choice of partners, allocation of financial resources etc.? Were GEF environmental and social safeguards considered when the project was designed²³?
- 22. **Project implementation and management**. This includes an analysis of implementation approaches used by the project, its management framework, the project's adaptation to changing conditions (adaptive management), the performance of the implementation arrangements and partnerships, relevance of changes in project design, and overall performance of project management. The evaluation will:
 - (a) Ascertain to what extent the project implementation mechanisms outlined in the project document have been followed and were effective in delivering project outputs and outcomes. Were pertinent adaptations made to the approaches originally proposed?
 - (b) Evaluate the effectiveness and efficiency of project management by UNU-INWEH and how well the management was able to adapt to changes during the life of the project.
 - (c) Assess the role and performance of the project coordination unit, steering committee, working groups and scientific synthesis committee established, and the project execution arrangements at all levels.
 - (d) Assess the extent to which project responded to direction and guidance provided by the Steering Committee and UNEP supervision recommendations.
 - (e) Identify operational and political / institutional problems and constraints that influenced the effective implementation of the project, and how the project partners tried to overcome these problems. How did the relationship between the project management team (UNU-INWEH-INWWEH) and other partners develop?
 - (f) Assess the extent to which Terminal Evaluation recommendations were followed in a timely manner.
 - (g) Assess the extent to which the project implementation met GEF environmental and social safeguards requirements.
- 23. **Stakeholder participation and public awareness**. The term stakeholder should be considered in the broadest sense, encompassing project partners, government institutions, private interest groups, local

²² Stakeholders are the individuals, groups, institutions, or other bodies that have an interest or stake in the outcome of the project. The term also applies to those potentially adversely affected by the project.

²³ http://www.thegef.org/gef/node/4562

communities etc. The TOC analysis should assist the evaluators in identifying the key stakeholders and their respective roles, capabilities and motivations in each step of the causal pathway from activities to achievement of outputs and outcomes to impact. The assessment will look at three related and often overlapping processes: (1) information dissemination between stakeholders, (2) consultation between stakeholders, and (3) active engagement of stakeholders in project decision making and activities. The evaluation will specifically assess:

- (a) the approach(es) used to identify and engage stakeholders in project design and implementation. What were the strengths and weaknesses of these approaches with respect to the project's objectives and the stakeholders' motivations and capacities? What was the achieved degree and effectiveness of collaboration and interactions between the various project partners and stakeholders during design and implementation of the project?
- (b) the degree and effectiveness of any public awareness activities that were undertaken during the course of implementation of the project; or that are built into the assessment methods so that public awareness can be raised at the time the assessments will be conducted;
- (c) how the results of the project (strategic programmes and plans, monitoring and management systems, sub-regional agreements etc.) promote participation of stakeholders, including users, in decision making in the IW sector.
- 24. **Country ownership and driven-ness.** The evaluation will assess the involvement of national government agencies and international governmental bodies in the project:
 - (d) In how far did participating government agencies assume responsibility for the project and provide adequate support to project execution, including the degree of cooperation received from the various public institutions involved in the project and the timeliness of provision of counter-part funding to project activities?
 - (e) To what extent has the political and institutional framework of participating governments been conducive to project performance?
 - (f) To what extent have the public entities promoted the participation of IW stakeholders and their non-governmental organisations in the project?
 - (g) To what extent are government decision making bodies making use of the learning and networks developed by the project?
- 25. **Financial planning and management**. Evaluation of financial planning requires assessment of the quality and effectiveness of financial planning and control of financial resources throughout the project's lifetime. The assessment will look at actual project costs by activities compared to budget (variances), financial management (including disbursement issues), and co-financing. The evaluation will:
 - (a) Verify the application of proper standards (clarity, transparency, audit etc.) and timeliness of financial planning, management and reporting to ensure that sufficient and timely financial resources were available to the project and its partners;
 - (b) Appreciate other administrative processes such as recruitment of staff, procurement of goods and services (including consultants), preparation and negotiation of cooperation agreements etc. to the extent that these might have influenced project performance;
 - (c) Present to what extent co-financing has materialized as expected at project approval (see Table 1). Report country co-financing to the project overall, and to support project activities at the national level in particular. The evaluation will provide a breakdown of final actual costs and co-financing for the different project components (see tables in Annex 3).
 - (d) Describe the resources the project has leveraged since inception and indicate how these resources are contributing to the project's ultimate objective. Leveraged resources are additional resources—beyond those committed to the project itself at the time of approval—that are mobilized later as a direct result of the project. Leveraged resources can be financial or

in-kind and they may be from other donors, NGO's, foundations, governments, communities or the private sector.

- 26. Analyse the effects on project performance of any irregularities in procurement, use of financial resources and human resource management, and the measures taken UNU-INWEH-INWWEH or UNEP to prevent such irregularities in the future. Appreciate whether the measures taken were adequate.
- 27. **UNEP supervision and backstopping.** The purpose of supervision is to verify the quality and timeliness of project execution in terms of finances, administration and achievement of outputs and outcomes, in order to identify and recommend ways to deal with problems which arise during project execution. Such problems may be related to project management but may also involve technical/institutional substantive issues in which UNEP has a major contribution to make. The evaluators should assess the effectiveness of supervision and administrative and financial support provided by UNEP including:
 - (a) The adequacy of project supervision plans, inputs and processes;
 - (b) The emphasis given to outcome monitoring (results-based project management);
 - (c) The realism and candour of project reporting and ratings (i.e. are PIR ratings an accurate reflection of the project realities and risks);
 - (d) The quality of documentation of project supervision activities; and
 - (e) Financial, administrative and other fiduciary aspects of project implementation supervision.
- 28. **Monitoring and evaluation**. The evaluation will include an assessment of the quality, application and effectiveness of project monitoring and evaluation plans and tools, including an assessment of risk management based on the assumptions and risks identified in the project document. The evaluation will appreciate how information generated by the M&E system during project implementation was used to adapt and improve project execution, achievement of outcomes and ensuring sustainability. M&E is assessed on three levels:
 - (a) M&E Design. Projects should have sound M&E plans to monitor results and track progress towards achieving project objectives. An M&E plan should include a baseline (including data, methodology, etc.), SMART indicators and data analysis systems, and evaluation studies at specific times to assess results. The time frame for various M&E activities and standards for outputs should have been specified. The evaluators should use the following questions to help assess the M&E design aspects:
 - Quality of the project logframe (original and possible updates) as a planning and monitoring instrument; analyse, compare and verify correspondence between the original logframe in the Project Document, possible revised logframes and the logframe used in Project Implementation Review reports to report progress towards achieving project objectives;
 - SMART-ness of indicators: Are there specific indicators in the logframe for each of the project objectives? Are the indicators measurable, attainable (realistic) and relevant to the objectives? Are the indicators time-bound?
 - Adequacy of baseline information: To what extent has baseline information on performance indicators been collected and presented in a clear manner? Was the methodology for the baseline data collection explicit and reliable?
 - Arrangements for monitoring: Have the responsibilities for M&E activities been clearly defined? Were the data sources and data collection instruments appropriate? Was the frequency of various monitoring activities specified and adequate? In how far were project users involved in monitoring?
 - Arrangements for evaluation: Have specific targets been specified for project outputs? Has
 the desired level of achievement been specified for all indicators of objectives and

- outcomes? Were there adequate provisions in the legal instruments binding project partners to fully collaborate in evaluations?
- Budgeting and funding for M&E activities: Determine whether support for M&E was budgeted adequately and was funded in a timely fashion during implementation.
- (b) *M&E Plan Implementation*. The evaluation will verify that:
 - the M&E system was operational and facilitated timely tracking of results and progress towards projects objectives throughout the project implementation period;
 - annual project reports and Progress Implementation Review (PIR) reports were complete, accurate and with well justified ratings;
 - the information provided by the M&E system was used during the project to improve project performance and to adapt to changing needs.
- (c) Use of GEF Tracking Tools. These are portfolio monitoring tools intended to roll up indicators from the individual project level to the portfolio level and track overall portfolio performance in focal areas. Each focal area has developed its own tracking tool²⁴ to meet its unique needs. Agencies are requested to fill out at CEO Endorsement (or CEO approval for MSPs) and submit these tools again for projects at mid-term and project completion. The evaluation will verify whether UNEP has duly completed the relevant tracking tool for this project, and whether the information provided is accurate.

Complementarities with UNEP strategies and programmes

- 29. UNEP aims to undertake GEF funded projects that are aligned with its own strategies. The evaluation should present a brief narrative on the following issues:
 - (a) Linkage to UNEP's Expected Accomplishments and POW 2010-2011. The UNEP MTS specifies desired results in six thematic focal areas. The desired results are termed Expected Accomplishments. Using the completed ToC/ROtl analysis, the evaluation should comment on whether the project makes a tangible contribution to any of the Expected Accomplishments specified in the UNEP MTS. The magnitude and extent of any contributions and the causal linkages should be fully described. Whilst it is recognised that UNEP GEF projects designed prior to the production of the UNEP Medium Term Strategy 2010-2013 (MTS)²⁵ would not necessarily be aligned with the Expected Accomplishments articulated in those documents, complementarities may still exist and it is still useful to know whether these projects remain aligned to the current MTS.
 - (b) Alignment with the Bali Strategic Plan (BSP)26. The outcomes and achievements of the project should be briefly discussed in relation to the objectives of the UNEP BSP.
 - (c) Gender. Ascertain to what extent project design, implementation and monitoring have taken into consideration: (i) possible gender inequalities in access to and the control over natural resources; (ii) specific vulnerabilities of women and children to environmental degradation or disasters; and (iii) the role of women in mitigating or adapting to environmental changes and engaging in environmental protection and rehabilitation. Appreciate whether the intervention is likely to have any lasting differential impacts on gender equality and the relationship between women and the environment. To what extent do unresolved gender inequalities affect sustainability of project benefits?

http://www.unep.org/PDF/FinalMTSGCSS-X-8.pdf

²⁴ http://www.thegef.org/gef/tracking_tools

http://www.unep.org/GC/GC23/documents/GC23-6-add-1.pdf

(d) South-South Cooperation. This is regarded as the exchange of resources, technology, and knowledge between developing countries. Briefly describe any aspects of the project that could be considered as examples of South-South Cooperation.

The Consultants' Team

- 30. For this evaluation, the evaluation team will consist of one team leader and one supporting consultant. The consultants should have experience in project evaluation, capacity building, communication, data and information management and in International Water issues (freshwater and marine). The Team Leader will coordinate data collection and analysis, and the preparation of the main report for the evaluation, with substantive contributions by the supporting consultant. Both consultants will ensure together that all evaluation criteria are adequately covered.
- 31. By undersigning the service contract with UNEP/UNON, the consultants certify that they have not been associated with the design and implementation of the project in any way which may jeopardize their independence and impartiality towards project achievements and project partner performance. In addition, they will not have any future interests (within six months after completion of the contract) with the project's executing or implementing units.

Evaluation Deliverables and Review Procedures

- 32. The evaluation team will prepare an **inception report** (see Annex 1(a) of TORs for Inception Report outline) containing a thorough review of the project context, project design quality, a draft reconstructed Theory of Change of the project, the evaluation framework and a tentative evaluation schedule.
- 33. The review of design quality will cover the following aspects (see Annex 7 for the detailed project design assessment matrix):
 - Strategic relevance of the project
 - Preparation and readiness (see paragraph 25);
 - Financial planning (see paragraph 30);
 - M&E design (see paragraph 33(a));
 - Complementarities with UNEP strategies and programmes (see paragraph 34);
 - Sustainability considerations and measures planned to promote replication and up scaling (see paragraph 23).
- 34. The inception report will also present a draft, desk-based reconstructed Theory of Change of the project. It is vital to reconstruct the ToC *before* the most of the data collection (review of reports, in-depth interviews, observations on the ground etc.) is done, because the ToC will define which direct outcomes, drivers and assumptions of the project need to be assessed and measured to allow adequate data collection for the evaluation of project effectiveness, likelihood of impact and sustainability.
- 35. The evaluation framework will present in further detail the evaluation questions under each criterion with their respective indicators and data sources. The evaluation framework should summarize the information available from project documentation against each of the main evaluation parameters. Any gaps in information should be identified and methods for additional data collection, verification and analysis should be specified.
- 36. The inception report will also present a tentative schedule for the overall evaluation process and list of people/institutions to be interviewed.
- 37. The inception report will be submitted for review and approval by the Evaluation Office before the evaluation team commences the interviews and document reviews.

- 38. The main evaluation report should be brief (no longer than 35 pages excluding the executive summary and annexes), to the point and written in plain English. The evaluation team will deliver a high quality report in English by the end of the assignment. The report will follow the annotated Table of Contents outlined in Annex 1. It must explain the purpose of the evaluation, exactly what was evaluated and the methods used (with their limitations). The report will present evidence-based and balanced findings, consequent conclusions, lessons and recommendations, which will be cross-referenced to each other. The report should be presented in a way that makes the information accessible and comprehensible. Any dissident views in response to evaluation findings will be appended in footnote or annex as appropriate. To avoid repetitions in the report, the authors will use numbered paragraphs and make cross-references where possible.
- 39. **Review of the draft evaluation report**. The evaluation team will submit the zero draft report latest two weeks after the country visit has been completed to the UNEP EO and revise the draft following the comments and suggestions made by the EO. Once a draft of adequate quality has been accepted, the EO will share this first draft report with the UNEP Task Manager, who will ensure that the report does not contain any blatant factual errors. The UNEP Task Manager will then forward the first draft report to the other project stakeholders, in particular UNU-INWEH, UNEP-DEWA, UNESCO Water division, SAMS, ELME and LOICZ for review and comments. Stakeholders may provide feedback on any errors of fact and may highlight the significance of such errors in any conclusions. It is also very important that stakeholders provide feedback on the proposed recommendations and lessons. Comments would be expected within two weeks after the draft report has been shared. Any comments or responses to the draft report will be sent to the UNEP EO for collation. The EO will provide the comments to the evaluation team for consideration in preparing the final draft report.
- 40. The evaluation team will submit the final draft report no later than 2 weeks after reception of stakeholder comments. The team will prepare a **response to comments**, listing those comments not or only partially accepted by them that could therefore not or only partially be accommodated in the final report. They will explain why those comments have not or only partially been accepted, providing evidence as required. This response to comments will be shared by the EO with the interested stakeholders to ensure full transparency.
- 41. **Submission of the final Terminal Evaluation report**. The final report shall be submitted by Email to:

Mike Spilsbury, Chief of Evaluation

UNEP Evaluation Office

P.O. Box 30552-00100

Nairobi, Kenya

Tel.: (+254-20) 762 3387

Email: Michael.Spilsbury@unep.org

42. The Head of Evaluation will share the report with the following persons:

Maryam Niamir-Fuller, Director

UNEP/GEF Coordination Office

Nairobi, Kenya

Email: maryam.niamir-fuller@unep.org

Peter Gilruth, Director Division of Early Warning and Assessment (DEWA) United Nations Environment Programme Nairobi, Kenya

Peter.gilruth@unep.org

Isabelle Van der Beck, Task Manager UNEP Regional Office for North America 900 17th Street, NW Suite 506 Washington DC 20006 Telephone: (+202 7850465

Email: UNEPRep@oas.org

- 43. The final evaluation report will be published on the UNEP Evaluation Office web-site www.unep.org/eou. Subsequently, the report will be sent to the GEF Office of Evaluation for their review, appraisal and inclusion on the GEF website.
- 44. As per usual practice, the UNEP EO will prepare a **quality assessment** of the first draft and final draft report, which is a tool for providing structured feedback to the evaluation consultants. The quality of the report will be assessed and rated against the criteria specified in Annex 4.
- 45. The UNEP Evaluation Office will assess the ratings in the final evaluation report based on a careful review of the evidence collated by the evaluation consultant and the internal consistency of the report. Where there are differences of opinion between the evaluator and UNEP Evaluation Office on project ratings, both viewpoints will be clearly presented in the final report. The UNEP Evaluation Office ratings are the final ratings that will be submitted to the GEF Office of Evaluation.

Logistical arrangement

46. This Terminal Evaluation will be undertaken by an independent evaluation consultants contracted by the UNEP Evaluation Office. The consultants will work under the overall responsibility of the UNEP Evaluation Office and will consult with the EO on any procedural and methodological matters related to the evaluation. It is, however, the consultants' individual responsibility to arrange for their travel, visa, obtain documentary evidence, plan meetings with stakeholders, organize field visits, and any other logistical matters related to the assignment. The UNEP Task Manager and UNU-INWEH will, where possible, provide logistical support (introductions, meetings, transport etc.) for the country visit, allowing the consultants to conduct the evaluation as efficiently and independently as possible.

Schedule of the evaluation

Table 4. Tentative schedule for the evaluation

Milestone	Deadline
Consultant contracts signed	February 2014
Inception Report	Early March 2014
Interviews/Document review/Visits	April 2014
Zero Draft Report	Early May 2014

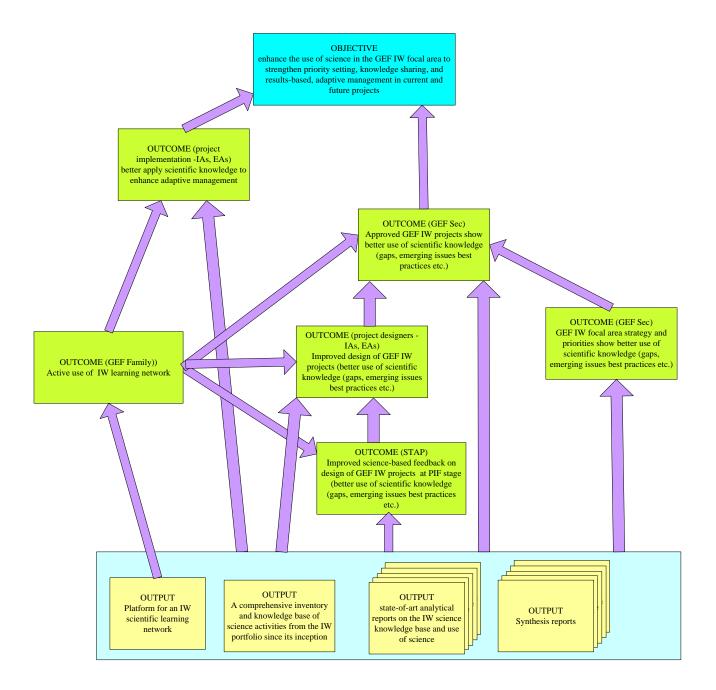
First Draft Report shared with project manager	Mid May
First Draft Report shared with stakeholders	End of May
Final Report	June 10

- 47. Both consultants will be hired under an individual Special Service Agreement (SSA). There are two options for contract and payment: lumpsum or "fees only".
- 48. **Lumpsum**: The contract covers both fees and expenses such as travel, per diem (DSA) and incidental expenses which are estimated in advance. The consultants will receive an initial payment covering estimated expenses upon signature of the contract.
- 49. **Fee only**: The contract stipulates consultant fees only. Air tickets will be purchased by UNEP and 75% of the DSA for each authorised travel mission will be paid up front. Local in-country travel and communication costs will be reimbursed on the production of acceptable receipts. Terminal expenses and residual DSA entitlements (25%) will be paid after mission completion.
- 50. The payment schedule for both consultants will be linked to the acceptance of the key evaluation deliverables by the Evaluation Office:

Final inception report:
 First draft main evaluation report:
 Final main evaluation report:
 40 percent of agreed total fee
 40 percent of agreed total fee

- 51. In case the consultants are not able to provide the deliverables in accordance with these TORs, in line with the expected quality standards by the UNEP Evaluation Office, payment may be withheld at the discretion of the Head of the Evaluation Office until the consultants have improved the deliverables to meet UNEP's quality standards.
- 52. If the consultants fail to submit a satisfactory final product to UNEP in a timely manner, i.e. within one month after the end date of their contract, the Evaluation Office reserves the right to employ additional human resources to finalize the report, and to reduce the consultants' fees by an amount equal to the additional costs borne by the Evaluation Office to bring the report up to standard.

ANNEX 8. Alternative version of the TOC prepared by the UNEP Evaluation Office. Discussed at inception stage.



Annex 9. Quality Assessment of the initial submission – (draft terminal evaluation report) for the GEF Medium Sized Project (MSP) *Enhancing the use of science in International Waters projects to improve project results*'

Substantive report quality criteria	UNEP EO Comments	Draft Report Rating	Final Report Rating
A. Strategic relevance: Does the report present a well-reasoned, complete and evidence-based assessment of strategic relevance of the intervention?	Draft report: Final report: Fully discussed	4	5
B. Achievement of outputs: Does the report present a well-reasoned, complete and evidence-based assessment of outputs delivered by the intervention (including their quality)?	Draft report: Final report: Discussed but still the opinions received from the Executing Agency rather dominate the narrative.	4	4
C. Presentation Theory of Change: Is the Theory of Change of the intervention clearly presented? Are causal pathways logical and complete (including drivers, assumptions and key actors)?	Draft report: Final report: EO's TOC was not adopted by the evaluator, so is appended to the report.	3.5	3.5
D. Effectiveness - Attainment of project objectives and results: Does the report present a well-reasoned, complete and evidence-based assessment of the achievement of the relevant outcomes and project objectives?	Draft report: Final report: The assessment is fairly complete and highlights the, in this case, limited evidence in this regard.	3	4
E. Sustainability and replication: Does the report present a well-reasoned and evidence-based assessment of sustainability of outcomes and replication / catalytic effects?	Draft report: Not fully discussed review comments provided. Final report: The report now	3	4

	discusses this fully.		
F. Efficiency: Does the report present a well-reasoned, complete and evidence-based assessment of efficiency?	Draft report: Final report: A rather weak treatment still prevails, limited by the information available.	3	3
G. Factors affecting project performance: Does the report present a well-reasoned, complete and evidence-based assessment of all factors affecting project performance? In particular, does the report include the actual project costs (total and per activity) and actual co-financing used; and an assessment of the quality of the project M&E system and its use for project management?	Draft report: The report seems unbalanced in its presentation of perspectives. UNU opinions seem to dominate Final report: This has been ameliorated with inclusion of Task Manager views to better balance some of the narrative	2	3
H. Quality and utility of the recommendations: Are recommendations based on explicit evaluation findings? Do recommendations specify the actions necessary to correct existing conditions or improve operations ('who?' 'what?' 'where?' 'when?)'. Can they be implemented?	Draft report: Final report: Recommendations were discussed with the project manager and revised to make them more useful.	3	4
I. Quality and utility of the lessons: Are lessons based on explicit evaluation findings? Do they suggest prescriptive action? Do they specify in which contexts they are applicable?	Draft report: Lessons needed revision Final report: The lessons are acceptable but rather generic for the 'GEF family'.	3	4
Other report quality criteria			
J. Structure and clarity of the report: Does the report structure follow EO guidelines? Are all requested Annexes included?	Draft report: Final report: adequate	3	4
K. Evaluation methods and information	Draft report:	3	3.5

sources: Are evaluation methods and information sources clearly described? Are data collection methods, the triangulation / verification approach, details of stakeholder consultations provided? Are the limitations of evaluation methods and information sources described?	Final report: Insufficient triangulation for some points and the evaluator needed to present the various veiwpoints of different project stakeholders more systematically		
L. Quality of writing: Was the report well written? (clear English language and grammar)	Draft report: Good Final report: Good	4	4
M. Report formatting: Does the report follow EO guidelines using headings, numbered paragraphs etc.	Draft report: Adequate Final report: Adequate	4	4
OVERALL REPORT QUALITY RATING		3.3	3.8
		MU	MS

Rating system for quality of evaluation reports

A number rating 1-6 is used for each criterion: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, Highly Unsatisfactory = 1

The overall quality of the evaluation report is calculated by taking the mean score of all rated quality criteria.